ARCHITECTVRE

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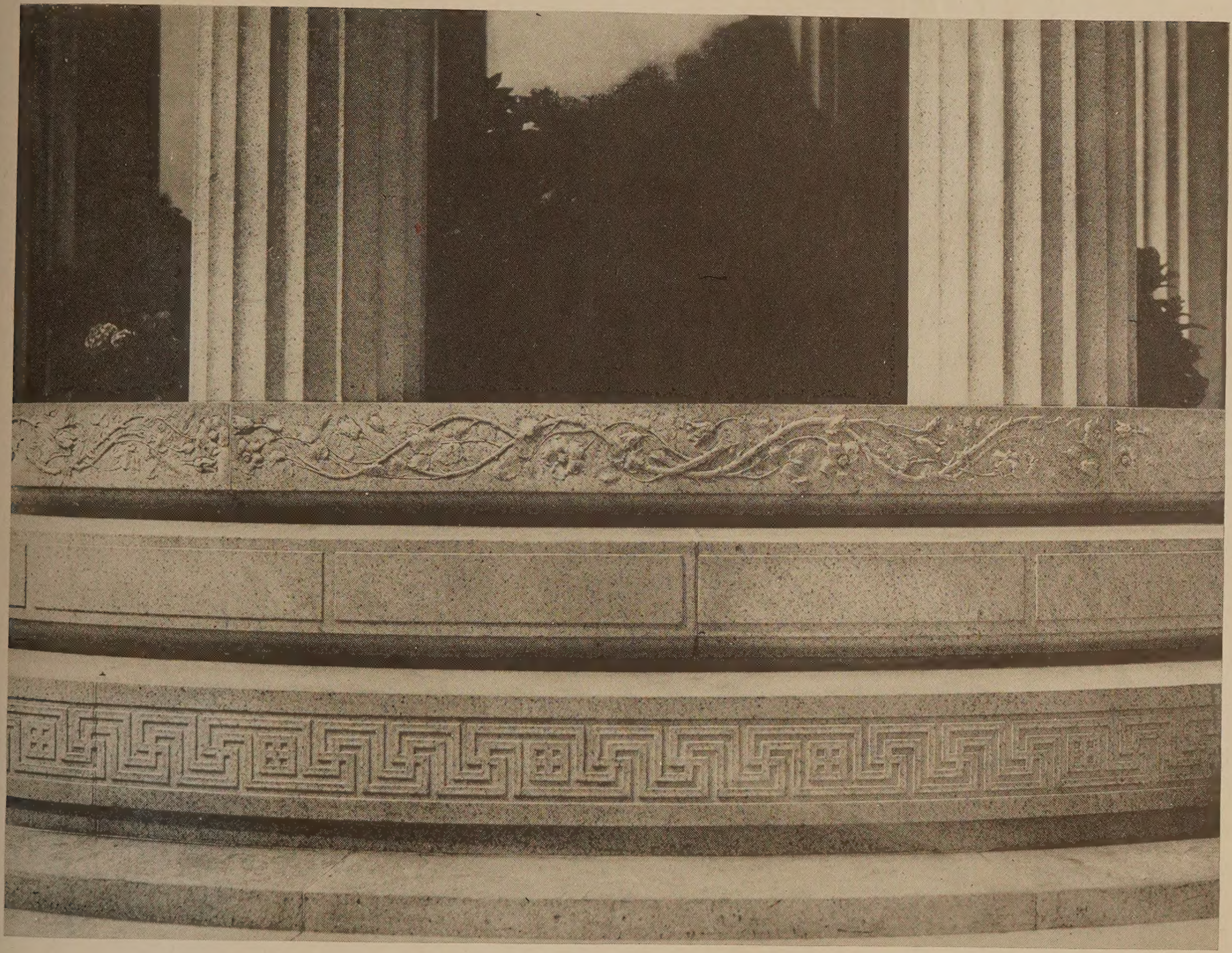
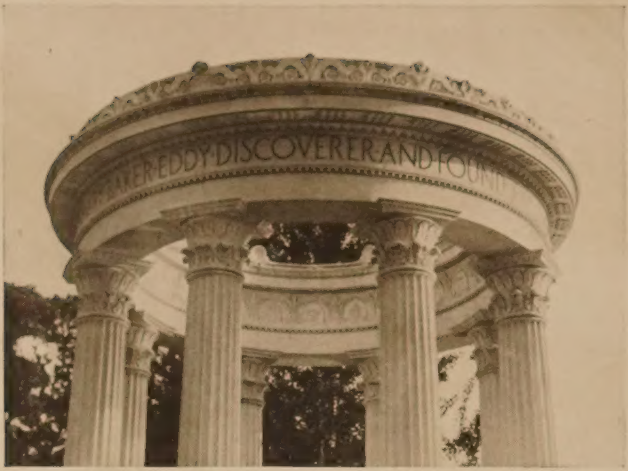


The Memorial to Mary Baker Eddy

By Egerton Swartwout

ABOUT four years ago I was asked by the Board of Directors of the Christian Science Church to submit in competition a design for a memorial which was to be erected in Mount Auburn Cemetery, Cambridge, Mass., to the memory of Mrs. Eddy. This competition, permissible under the Institute Code at that time, was in form different from any competition I had ever been in; there were absolutely no fixed requirements; the location and size of the lot were given and a general limit of cost. Beyond that all was left to the competitor, except that there was a suggestion on the part of the board that they did not think sculpture would be desirable.

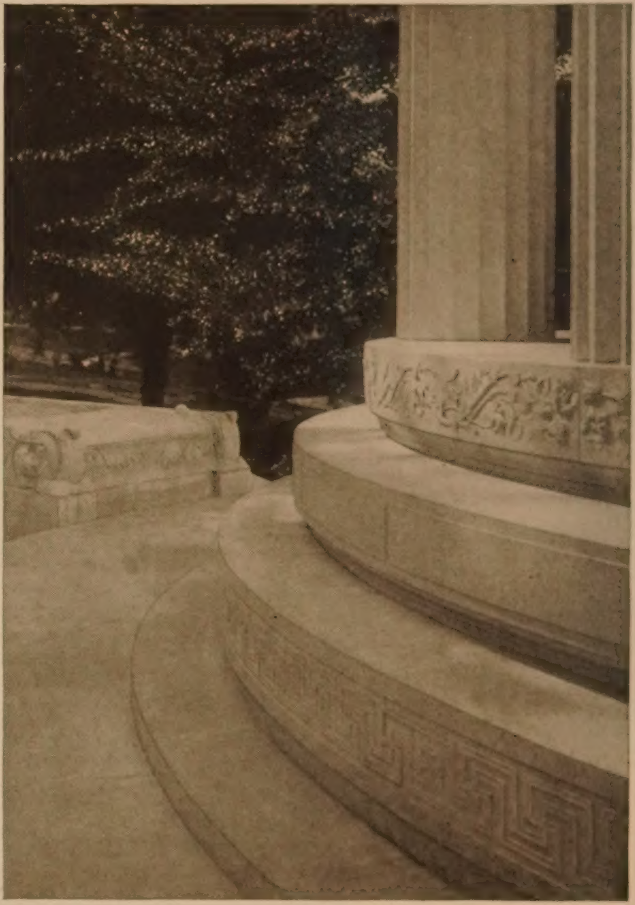
This freedom from fixed requirements is, I have generally found, very embarrassing in a competition. It is very hard to start, because there is nothing to start from. The plot was about one hundred feet square, the front half practically level, and the other half sloping at about a twenty-per-cent. gradient to a small lake a half mile or so in circumference, the grave being situated at the centre of the plot. I felt that on account of the irregularity of the site and of the



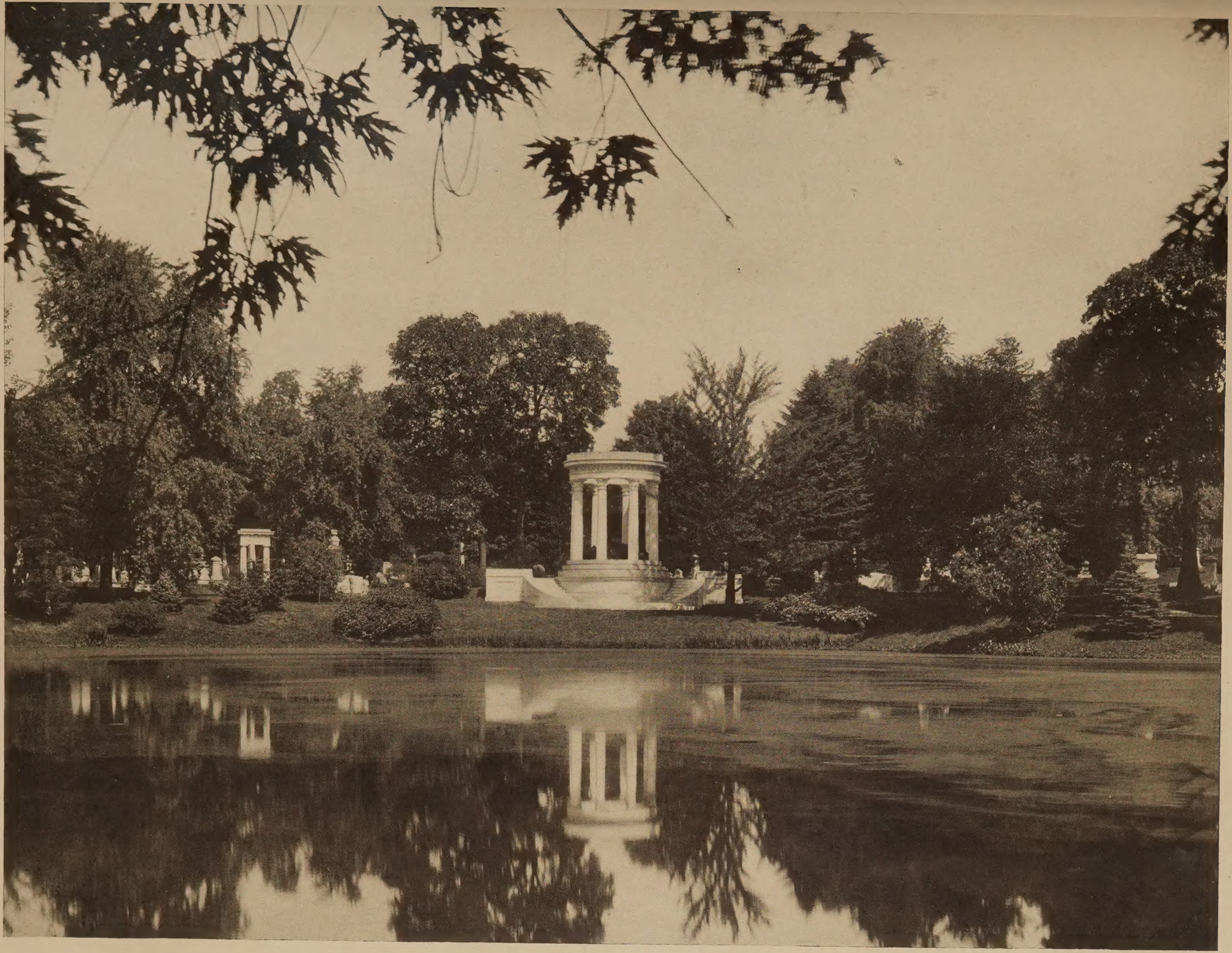
approaches some circular form of monument would be best, and that by the adoption of this shape the difference in grade could be overcome by the addition of two flights of circular steps which would embrace the superstructure and form a base on the lake side, as from that side would be the principal view of the memorial. I was anxious to avoid the forms associated with funereal monuments, and finally adopted a scheme consisting of a circular ring of columns covered with a low segmental dome. I found, however, that this had too much of the feeling of a park treatment, so the dome was eliminated and the columns connected only by a circular entablature, the central portion being entirely open; and the same open treatment was subsequently extended to the floor of the memorial, as it seemed fitting and appropriate to have no covering but flowers over the grave and these flowers themselves open to the sky.

After the scheme had been adopted several models at a small scale were made, the first in plaster from the competition drawings and another in plastiline after the restudy, and finally a complete model in plaster at the size of execution. When it came to working out the detail on this model, a suggestion was made by the board that the detail should be confined as far as possible to floral forms, and they were especially anxious to use the wild rose, Mrs. Eddy's favorite flower. It seemed impossible to conventionalize the wild rose, so Mr. Menconi, the modeller, and myself started to see if we could model floral forms which would be naturalistic and yet classic in feeling. How well Mr. Menconi succeeded can be seen in the photographic reproductions—the morning-glory rinceau on the pylon tops and the wild-rose design on the steps of the stylobate being especially successful.

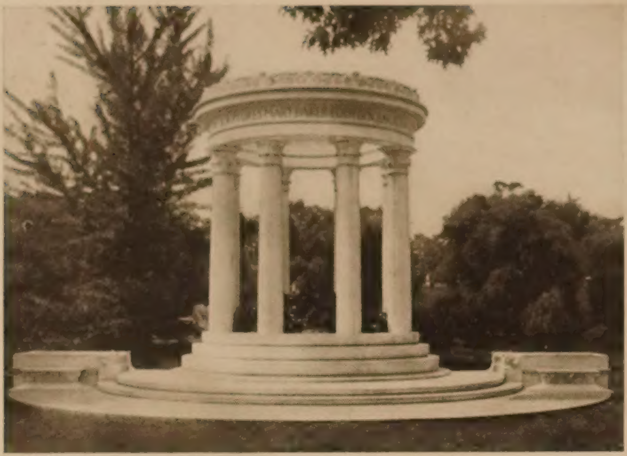
I should have stated before that my first idea was to build the memorial of white marble, but after long consideration it was decided to use granite on account of its superior durability, and white Bethel granite was finally adopted. I had always shared the fallacy that granite could not be carved with the delicacy of marble, and I therefore had a series of experiments made, using an inlay of white bronze for the finer detail, my idea being that in some places the bronze could come free of the stone and in others form part of the high relief carving; in other words, a mingling of stone carving and bronze inlay. It was interesting, and I hope some day to develop the idea, but I found that it was a little too spotty, especially in circular work, the white bronze showing very light in one place and quite dark in another. I gave up the idea with regret and confined the use of bronze to the inscriptions.



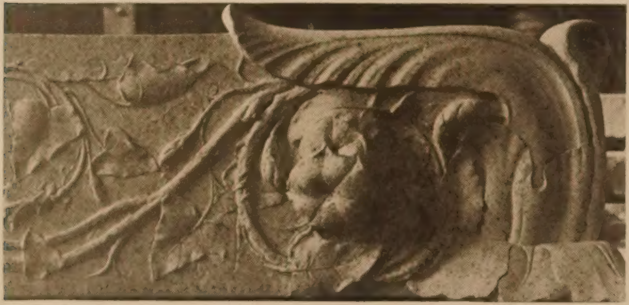
In the meantime Mr. Menconi had secured a piece of the granite and found that with care a perfect reproduction of one of the scrolls from the top of the Lysicrates monument could be carved in granite, using a cast from the original for a model, and I became convinced that detail could be carved in granite to almost any extent provided sufficient time and care were expended. That this is true can be seen by an inspection of the memorial; the photographs show it, but only to a limited extent; one actually has to see the carving itself to appreciate the marvellous delicacy which has been obtained. Just how this was done I will describe later.



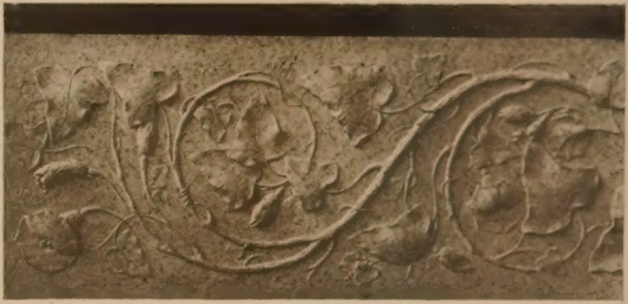
THE EDDY MEMORIAL FROM ACROSS THE LAKE.



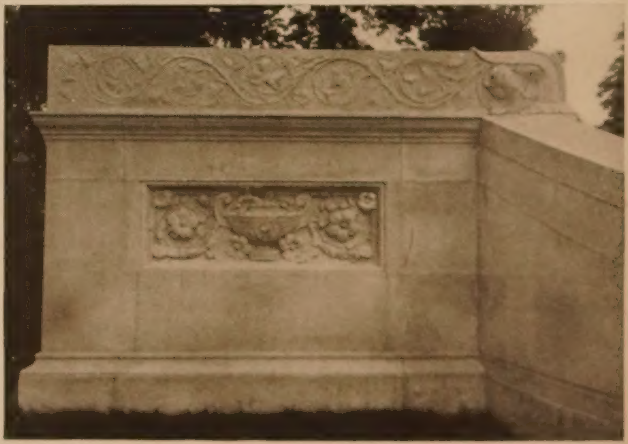
Having thus found that we could get any effect we wanted in granite, the modelling was completed with the greatest care and under the constant supervision of the Board of Directors; the ends of the pylons were cut out to form a low seat and the steps of the stylobate enriched with a fret and the wild-rose rinceau and the cornice and cheneau developed. The capitals of the columns gave me a great deal of trouble. I could not use a Doric form on account of the small diameter of the circle in plan, and for the same reason Ionic was unavailable. Corinthian was too complicated at such a small scale (the columns being only fifteen feet high), and so I fell back on a modified Doric form, which is transitional from the Doric to the Corinthian, several examples of which have been found, notably that of the so-called Tower of the Winds. I could not use the acanthus leaves which are a feature of this latter cap, because they were too conventional to harmonize with the detail elsewhere used, but it was evident the general form was necessary; so a series of sheaths were modelled around the surface of the cap, in form and shape corresponding to the leaves, and within these sheaves were floral forms similar in character to those of the stylobate and pylons. The leaves in low relief on the upper part of the caps were varied in form, and the tops of the flutes of the columns were finished with a delicately modelled flower, and even the neck mould was ornamented. The result was a cap which at a distance had the general shape and necessary shadows of the transitional model and yet had the delicacy of detail essential to keep it in scale with the rest of the memorial. The frieze and inner surface of the entablature were also difficult to develop satisfactorily. The outer frieze carried the dedicatory inscription, and the insistent repetition of the letters emphasized the circular character of the structure in a pleasing manner which I found difficult to obtain in running ornament. Half a dozen schemes were tried and given up. A definite repetition such as triglyphs with disks in the metopes would have given the desired effect, though this was naturally impossible in a quasi-Corinthian order, but I found I could get the same general effect by alternating an anthemium, having very deep and strongly marked vertical leaves, with a circular sheath, in the surface of which was modelled in very low relief various floral forms, the anthemia with their strong vertical shadows taking the place of the triglyphs and the circular sheaths recalling the disks of the metopes.



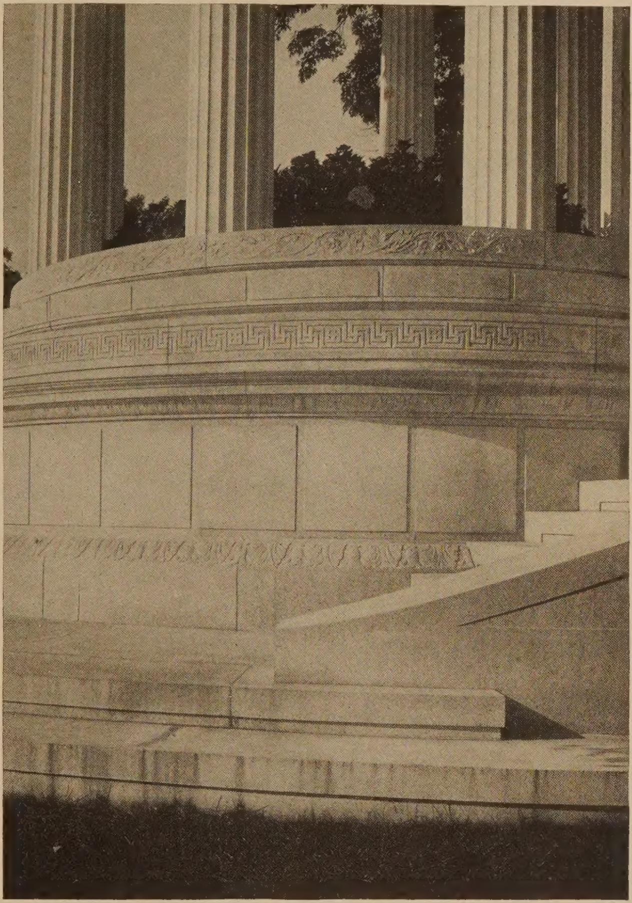
Allusion has already been made to the delicacy of the carving. Mr. Menconi, after careful search, engaged a crew of the best master carvers that probably have ever been assembled in this country. Each man was really an artist in his way, and there developed the most intense rivalry in the execution of the models in stone. In many cases the carving far exceeded the models in delicacy, and the most extraordinary results were obtained. As an incentive, each man was allowed to put his name on the individual stone he carved, on the side or bed, to be sure, but still it was there, this distinction being granted only to those doing work of superior excellence; and at the conclusion of this work a full list of the individual carvers, arranged in order of merit, was sent to the board, to be filed among their records, and each man on this list received a special letter of appreciation from the board. It was an interesting example of individualism which was most successful and which could well establish a fine precedent.



One other thing was worthy of mention—the finish of the granite. I wanted a smoother finish than the usual ten-cut work and tried a rubbed sample. This was not satisfactory, as it brought out the black mica spots in the granite and gave a cold gray tone instead of the warm white which the granite had when tooled. I thought we would



have to go back to the ten-cut, but much to my surprise I found that the carvers, with the pneumatic tool, had obtained a wonderful finish on the plain surfaces back of the carving. It was as smooth as the rubbed surface, and much more interesting, and strangely enough gave a whiter appearance to the stone than even the ten-cut. Just why it should do it, I don't know. I only know that it did. Possibly the jarring of the tool filled up the mica spots with granite dust, somewhat as a carborundum wheel fills up the veins of marble. It may be that in time it will go dark in spots, but I am inclined to think not. It has stood nearly two years without change. This finish was so good that it was decided to use it for the entire monument. It was expensive, but it was eminently satisfactory.

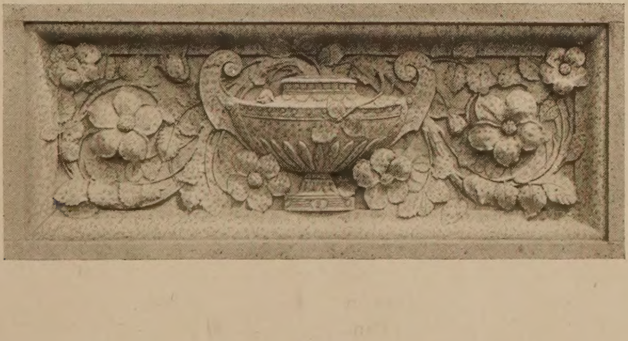


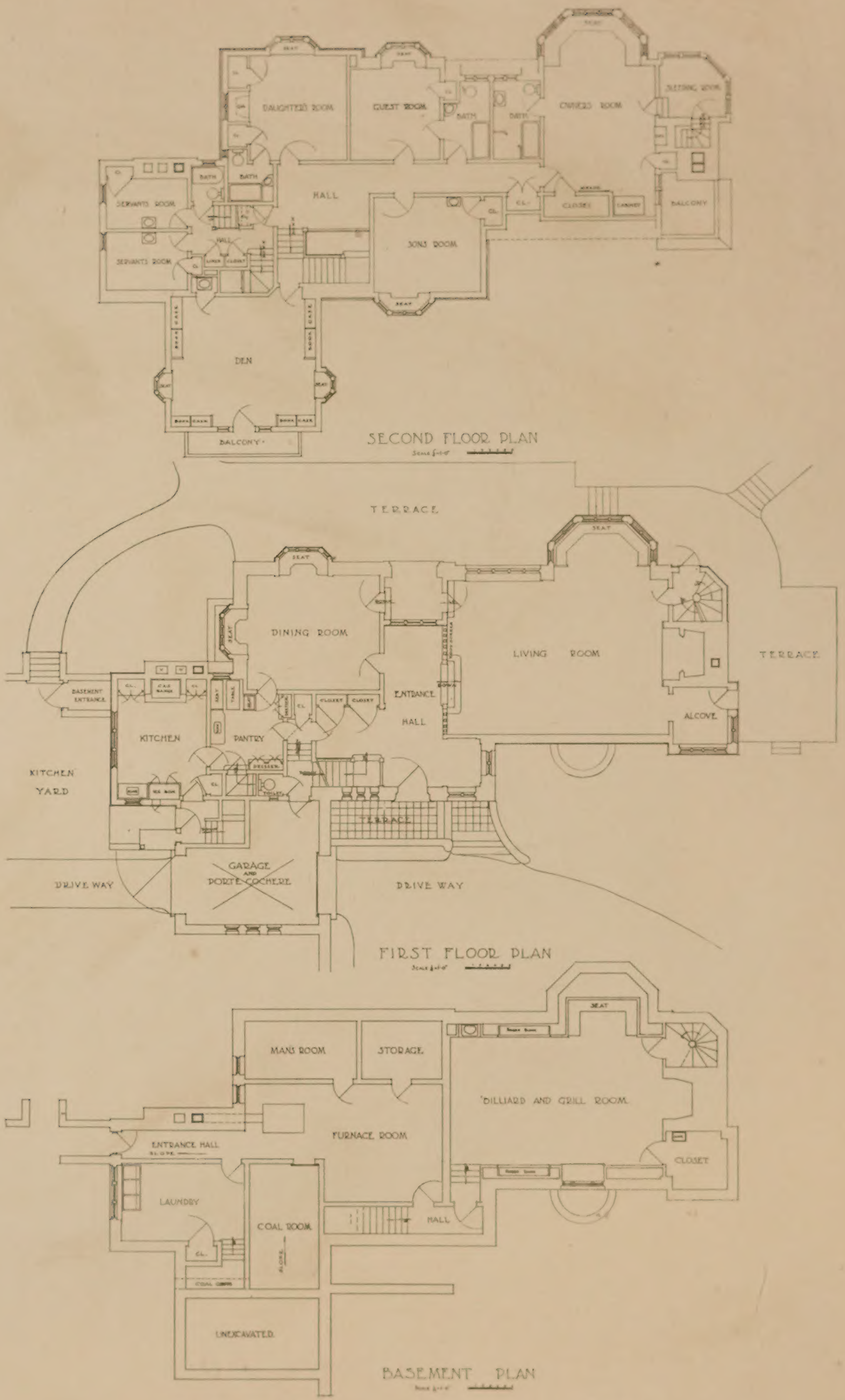
As to the scale of the memorial, it is about fifty-five feet in length from pylon to pylon over all, and the columns are fifteen feet high, the diameter of the colonnade being about seventeen feet. It is large enough to be important, but is still in scale with the surroundings.

In general, there are two novel and, I think, important developments in the execution of the memorial, the delicacy of the carving and the naturalistic character of the detail. As to the carving, I feel justified in stating that there has never before been such remarkable work in granite. Neither the Greeks nor the Romans used granite to any extent, and while the Egyptians did marvellous granite work, it was so different in character that comparison is impossible. I refer, of course, to the mechanical skill in copying the model with such minute fidelity and even in some cases exceeding the model in delicacy. The result is important. Granite *can* be carved with as much detail as marble, but it is not a commercial proposition. It takes time and costs money, but the result is worth it.

As to the naturalistic detail, I see no reason why this cannot be carried to a great development. I have always felt we have copied acanthus leaves and anthemia to an unnecessary extent; eggs and darts and water leaves are our stand-bys, chiefly, I suppose, because we can take all these from the books, or from casts, but there is no reason why our own common floral forms cannot be used and even conventionalized if you wish. Some of the corn and tobacco capitals in the Capitol at Washington are very interesting. It certainly takes time to develop such detail, and requires an excellent modeller, but naturalistic forms can be used and still present a classic character if proper study is used in the arrangement. The detail of the pylon tops and the stylobate steps of the Eddy Memorial are proofs of this. The panels were more difficult, being in higher relief, but carry well at a distance and are wonderfully well carved; and when you realize that these panels are only about a foot and a half high by two and a half feet long, you can appreciate from the photograph the remarkable quality of the carving.

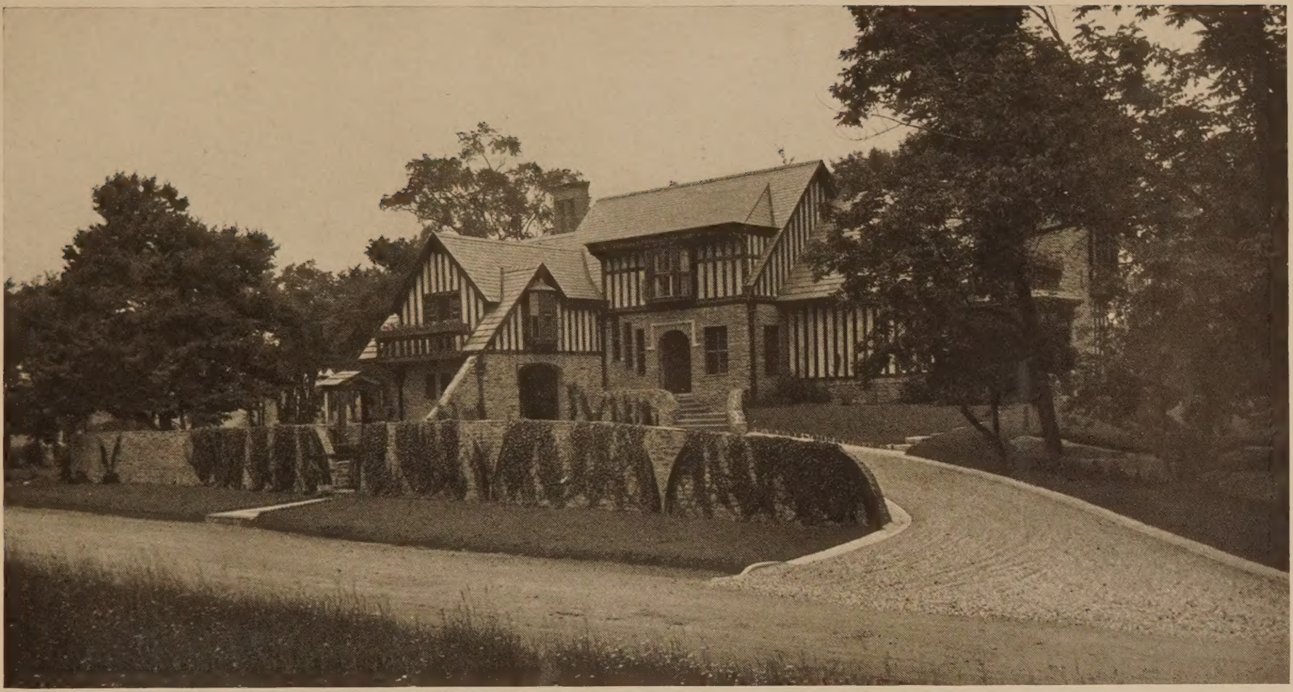
No description of the memorial would be complete without reference to the ability and devotion of Raphael and Frank Menconi, who did the modelling and carving, and to the far-sightedness and artistic appreciation of the Christian Science Board of Directors, to whose helpful suggestions is due much that is novel in the completed monument.





PLANS, RESIDENCE, C. A. BRIGGS, NEW ROCHELLE, N. Y.

Henry G. Morse, Architect.



The Briggs House at New Rochelle, N. Y.

A Veritable Snug Harbor

Henry G. Morse, Architect

THE residence of Mr. C. A. Briggs, the well-known cartoonist of the *New York Tribune*, was built to be representative of the early English half-timber work. Not the half-timber work that is usually seen in this country to-day but the time-seasoned kind that one stumbles over in rural England.

The architect realized that such a result could only be obtained by using hand-hewn timbers and timbers whose richness of color bore the mark of age.

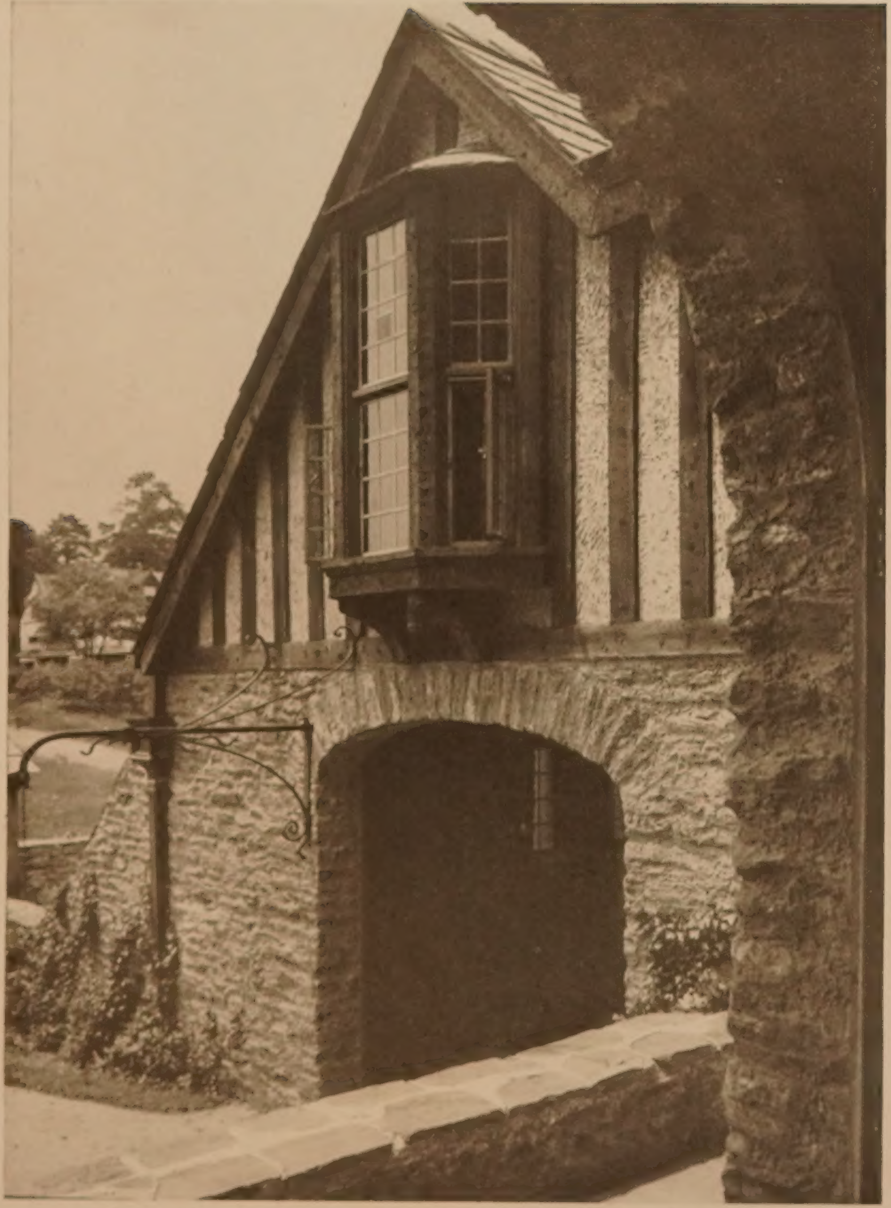
A very novel feature and the one that accounts for the beauty of the color is that the timbers were collected from hulls of old ships built when wood-pins were in vogue. These timbers were placed in the house just as they were when taken from their watery grave. With these ancient timbers as a frame the rest of the house was built to conform. Long flat stones from old stone walls were used for the stone work, the cement being forced into the joints by hand rather than pointed by metal trowel. Even the stucco was put on by hand, and by accident it was discovered that by using a wad of oakum dipped in oil and applied to the stucco one might secure a more antique effect.

The window-frames are of solid oak cut out of big ship timbers, the old wood-pins being constantly evident. Old "Hackmetight" ship knees form wonderful supports for projections on all sides of the exterior of the house. The levels of roof lines and gables and height of the stone work were all affected to a great extent by the length of these timbers.

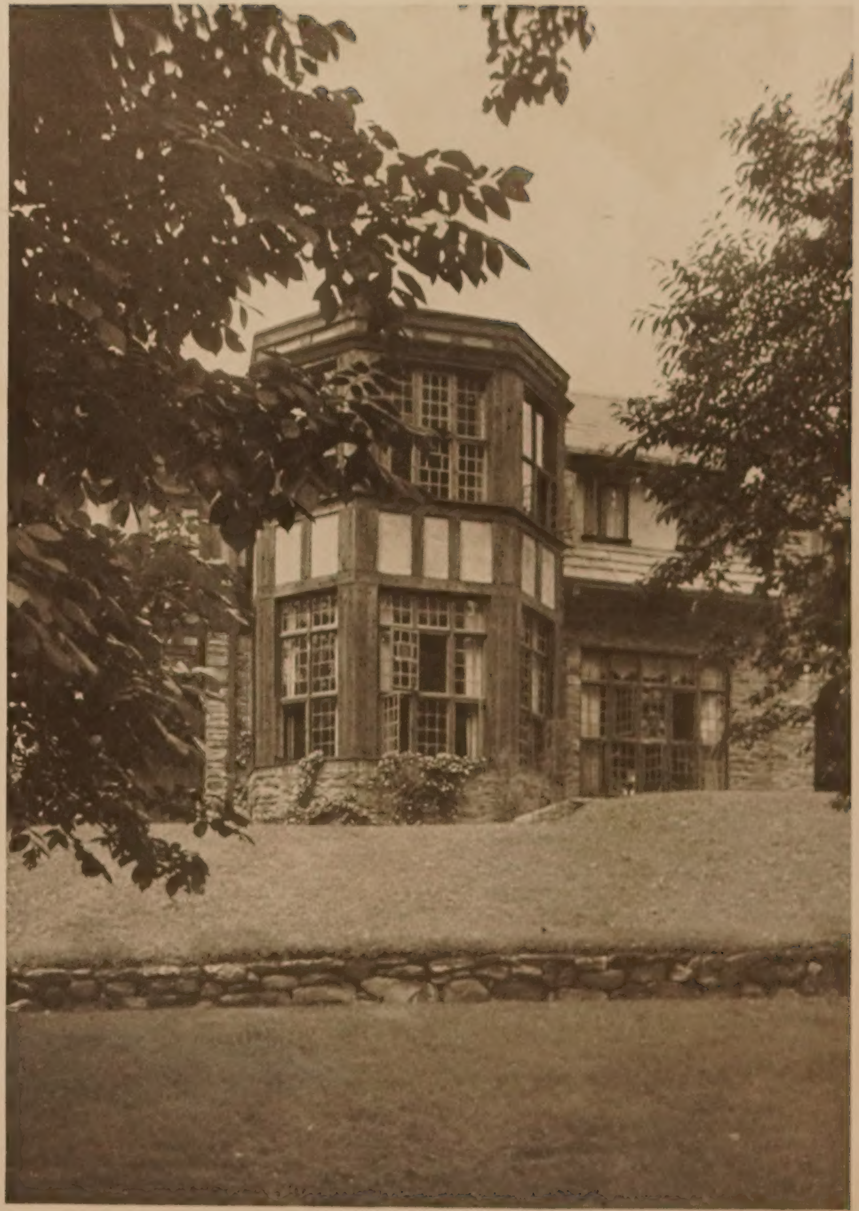
The front door, which weighs seven hundred pounds, is built with four pieces of heavy planking, and looks as though it had been attacked by ancient warriors, its movement being as slow as the pendulum of a grandfather's clock.

The chief feature of the first floor is the living-room, which one approaches down three wide steps and through a rood-screen built of the old knees of the boat. The room is panelled to the height of seven feet, with the half-timber above. The leaded-glass windows, with their English metal frames dotted here and there with quaintly painted ancient panes, are on the east side of the room reaching to the ceiling. The floor of this room is made out of the plankings of the old ships, which are 4 inches thick, 14 inches wide, and 40 feet long, the joints being corked with oakum and filled with pitch, the finish being of wax melted and poured on the floor, allowed to soak in and then rubbed down. The color reminds one of the background of an old painting. At the south end of the room is a huge fireplace, where half a dozen logs five feet long burn resting on their ends. Over this mantelpiece is a minstrel's gallery made of the knees and conforming with the rood-screen at the other end of the room. One approaches this gallery by a secret door in the panelling to the left of the fireplace. The lighting-fixtures are made from old wrought-iron sconces and candle-brackets and form a most interesting feature of the room.

Vying with this room in interest and charm is the owner's grill, or more appropriately called "snug harbor." Its walls are lined with boards from paddle-wheels of old side-wheelers, and here and there are concealed bunks. The ceiling shows the timbering of the floor of the living-room above. The fireplace is wide and low, and has for a chimney-breast a huge rudder from which its massive iron chains have never been detached. It is in this room that Mr. Briggs has his collection of ship relics.



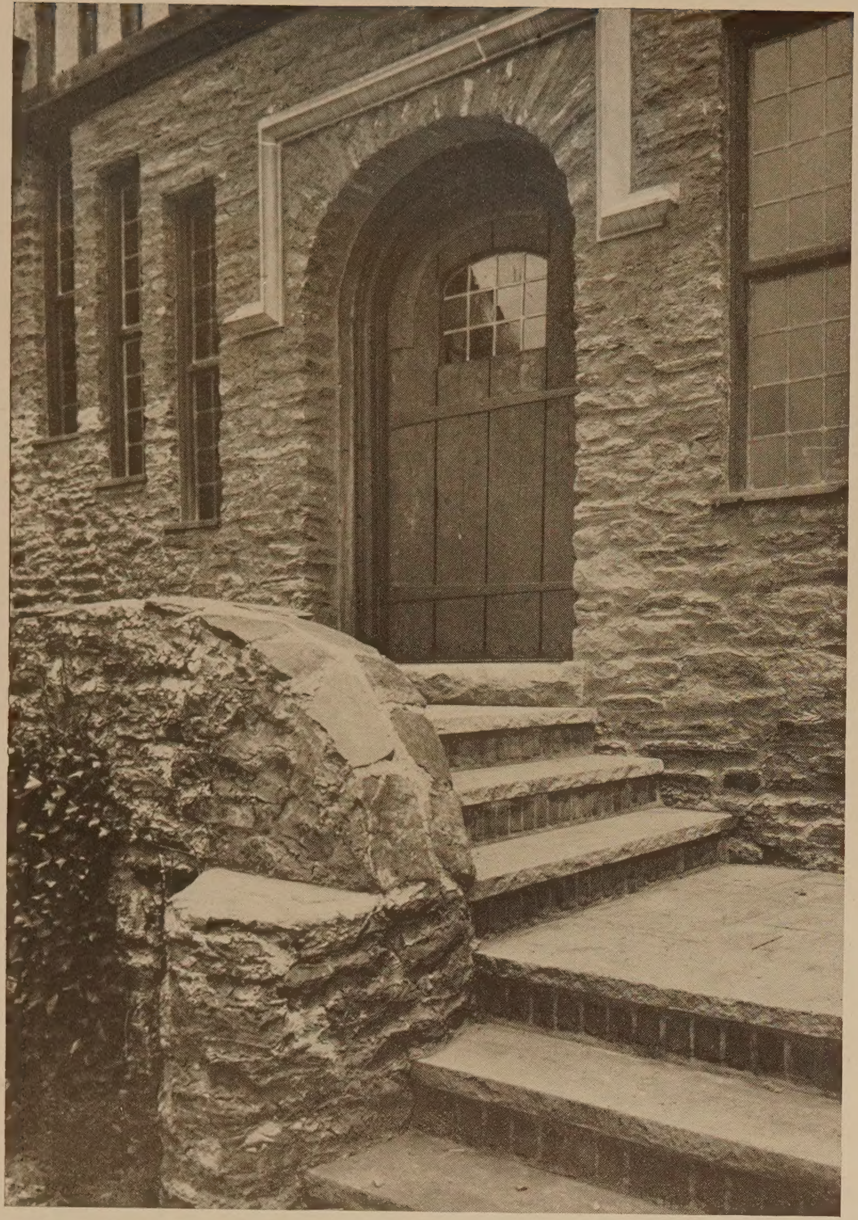
GARAGE AND PORTE-COCHÈRE.



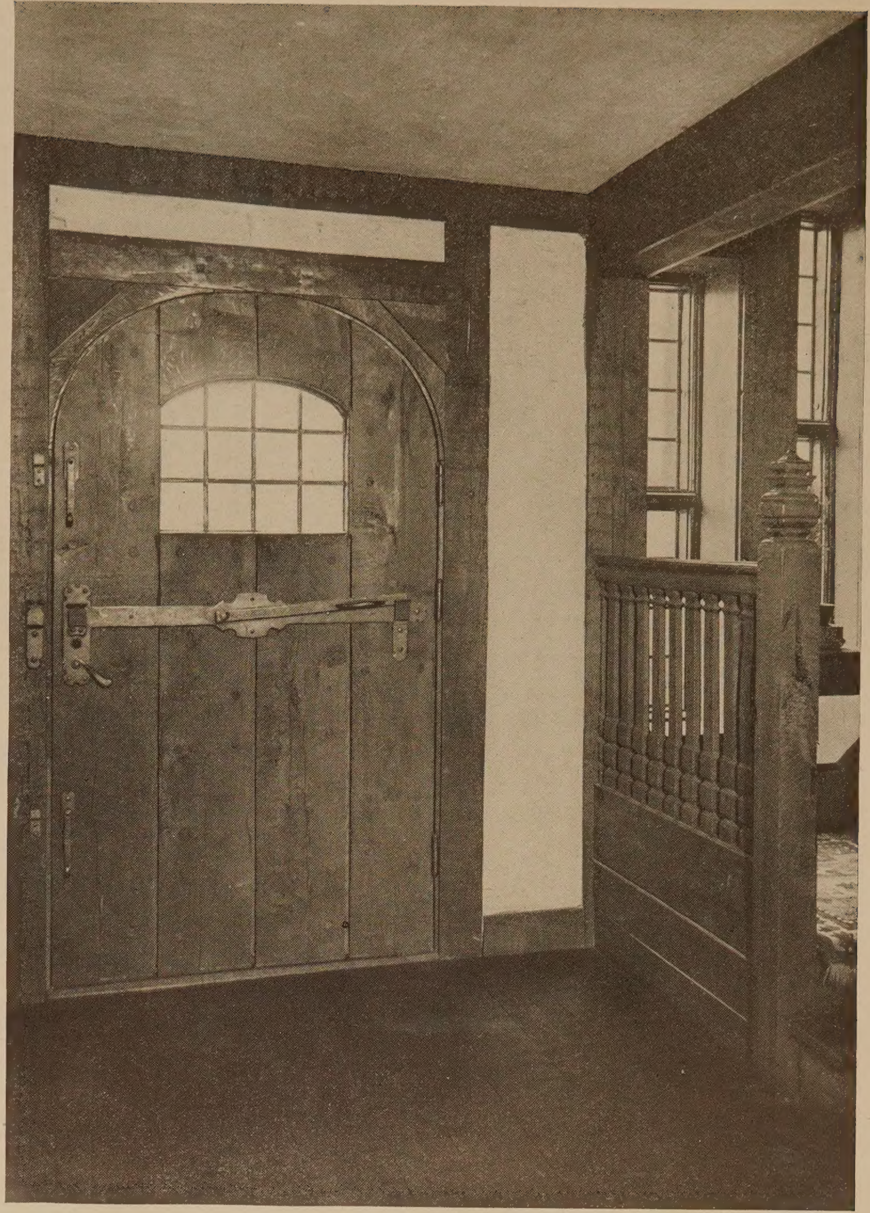
BAY WINDOW.

Henry G. Morse, Architect.

RESIDENCE, C. A. BRIGGS, NEW ROCHELLE, N. Y.



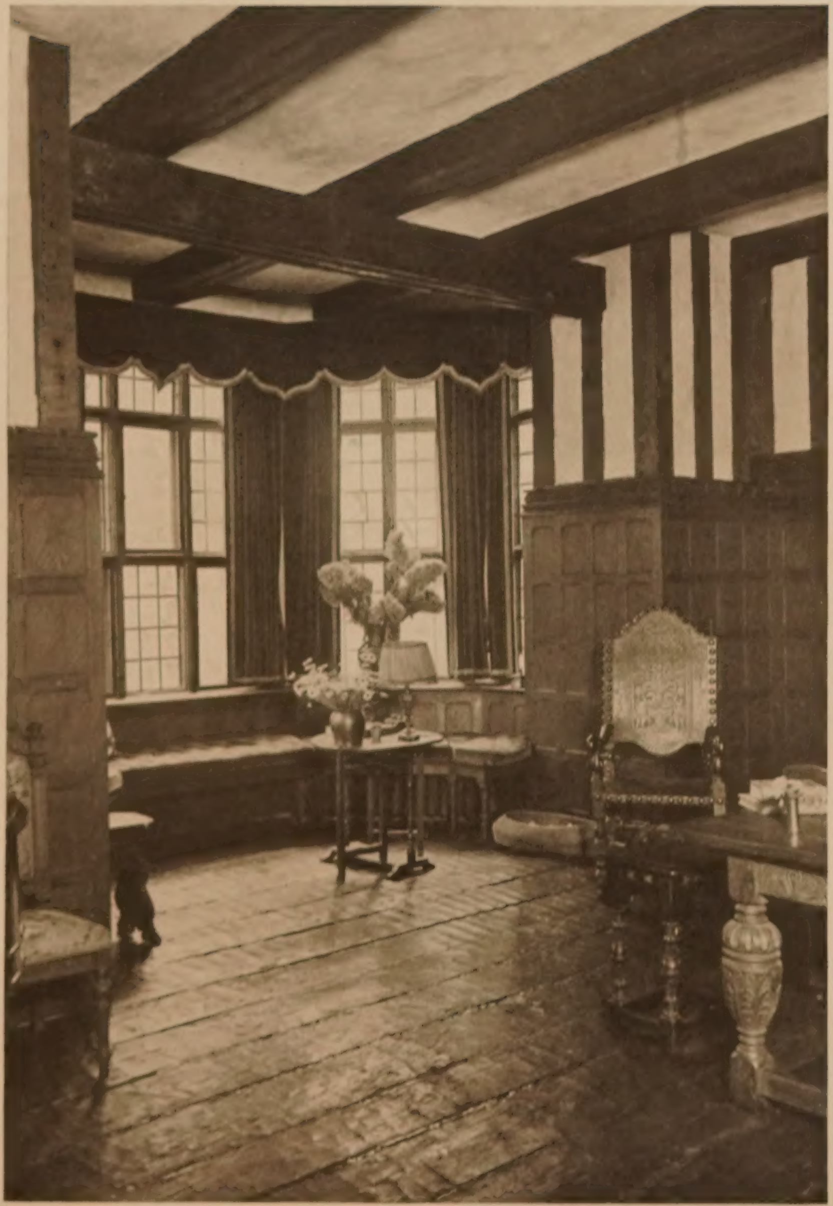
MAIN ENTRANCE DOOR.

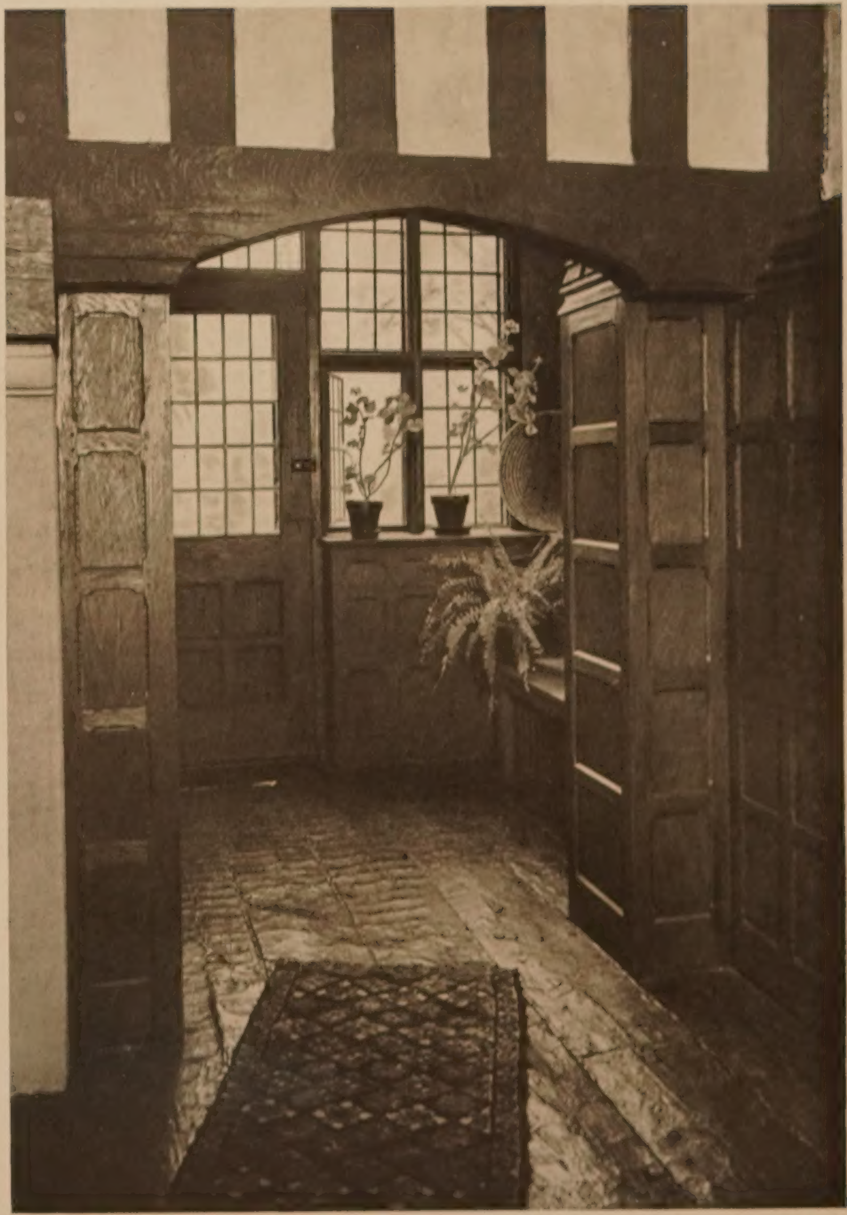


ENTRANCE HALL.

RESIDENCE, C. A. BRIGGS, NEW ROCHELLE, N. Y.

Henry G. Morse, Architect.





THE LIVING ROOM. RESIDENCE, C. A. BRIGGS, NEW ROCHELLE, N. Y. Henry G. Morse, Architect.

Editorial and Other Comment

Our First Camouflage Company

IT may be interesting to the profession to know that the first company especially organized for the work of camouflage in France is partly officered and partly composed of architects. We have always believed that the architectural profession was as loyal, as patriotic, and as self-sacrificing as any body of men bonded together by the ties of similar work and one country, and the willingness with which many members of the profession have left their business to join the army of the United States is a subject for congratulation.

Patriotism and self-sacrifice are not tangible and fixed objects, like money and property, and it is because of the possession of intangible qualities that architects succeed; wealth and property most of them do not possess, nor would many of them wish to exchange these things for what they have.

The men have gone out to serve in whatever capacity they could be most useful, and the ranks of the first company of the army of the United States organized for camouflage include among the enlisted men some of the first talent and the brightest spirits in America. The kindred professions of painting and sculpture have been no less eager to give of themselves, and the thirty enlisted men of the first company who are architects, painters, and sculptors are as fine mentally as they must be physically.

Every one now knows what camouflage is; it has gotten to be a slang word with us as it was in France at the beginning of the war, so that no explanation of it is here necessary, but it is a work which particularly appeals to the architect as being one for which he is well qualified, and one for which he is desired. There will be, no doubt, from time to time, further companies organized to perform this useful function; particulars concerning them may be learned from the office of the Chief of Engineers, War Department, Washington, D. C., and we take pleasure in bringing this information to the attention of our readers.

Consult the Architect

ONE of the great trials that too often comes to an architect is to visit a house, in the construction of which he has builded his own soul, expressed through his art, *after it has been furnished*. Woe be to the sensitive man who sees his handiwork made to cry out in very shame at the "Louis XIV street" or worse furniture, wall hangings, and floor coverings. There seems to be a widely prevailing opinion among the very rich that the architect's work ceases when the walls are up, the roof is on, and the painters have done their work. The bare walls of the interior may represent his sense of color, the outside may be surely his, but the fell work of the interior decorator, many times a graduate of the department store that specializes in real handmade furniture, cut out by the million by machinery, may spoil everything. It is a pity that we cannot follow some of the traditions of the good days of English furniture and furnishings and let the architect not only build the house but decorate it. The Adam brothers—Robert was architect for the King and Queen—were not only successful architects but they established a lasting name for themselves as well by the furniture which they built for many of their buildings. In the books they left we find that they designed the furniture, fire-grates, sofas, cornices, chimney pieces, made the plate and brasswork, frames for mirrors, counterpanes, carpets, and minor accessories. In other words, everything was harmonious and unified to complete the decorative scheme. It is enough to make a good architect foreswear his profession to be confronted with some of the rugs that cost thousands and yet shriek in utter discord with everything that frames them. The furnishings of many houses are chosen from the view-point of the man who didn't know anything about pictures but knew what he liked. Whenever I am asked, as I often am, about the decoration of some architecturally beautiful house, I say, let the architect do it, or at least consult him and follow his judgment when the purse permits.

The Supply of Steel and the Building Industry

EDITOR OF ARCHITECTURE:

My dear Sir: In giving consideration to the probable effect of present conditions of the building industry on the Manhattan district, the first consideration is as to what the demands of our Government and its Allies will be on the shops and mills of the structural steel industry of the Nation. I spent two days in Washington during the last week and, in consequence, have studied the situation thoroughly and I find that the Priority Board in Washington will have the classification of all steel for the Army, the Navy and our Allies, and also the classification of any work which may have to be done in connection with buildings, railroads, etc., on which the Government will be dependent for prompt action in the carrying out of its different projects in connection with the war.

It is a difficult—in fact, it is an impossible—query to make at the present time as to just what those demands will be or just what proportion of the output of the different mills and shops the Government will take. This one item makes a prophecy as to the revival of the building industry a very difficult one to answer. From personal observation, and from observation of those who are closely in touch with conditions throughout the country, it is my belief that the output of the mills and shops will not be taken up by the demands of the Government, which demands, of course, will be very large; but when one realizes the immense capacity of the combined mills and shops throughout the country one can see that the demands of the Government and Allies would have to be tremendous to anything like use the full capacity.

Outside of this item of uncertainty, I believe the situation will gradually clear itself through a temporary diminishing of orders for new work and a consequent cleaning up of the orders already in hand. At the expiration of the fulfilment of the orders already in hand it is very easy to see that the inquiry for steel on part of the mills will start and, in consequence, the natural resumption of the building industry will occur. The reduction in price of the commodity will, undoubtedly, help the situation very materially eventually and I think we should all take a cheerful view of the situation and, first of all, show our loyalty to our Government by in no way trying to interfere, by suggestion or otherwise, with the production of every article of necessity in carrying out the war, as its successful termination means so much not only to the Nation but to every individual comprising same.

Yours very truly,
W. T. SMITH,
THE GEORGE A. FULLER CO., N. Y. *Vice-President.*

Honor Roll

Members of the Architectural Profession in the Service of Our Country

We have been unable to obtain a complete list of names for the present number, but we hope to have the privilege of including in our list every member of the profession who has joined the colors, and should be glad to hear from any of our readers regarding omissions or errors and special service.

Ainsworth, H. R., Spokane, Wash. Quartermaster Corps Engineering.
Allen, Harris C. Lieut. Engineers Reserve Corps, U. S. A.
Allen, S. H., St. Louis, Mo.
Anderson, Charles, Spokane, Wash. At Presidio.
Andrews, Lawrence W., Pittsburgh, Pa. Officers' Reserve Corps, Fort Oglethorpe, Ga.

Bachmann, W. M., St. Louis, Mo.
Baur, John A., Presidio, S. F. Officers' Training Camp.
Bears, Sidney, St. Louis, Mo.
Bettcher, George F., Denver, Colo. At Fort Riley.
Blouke, Pierre, Chicago, Ills. U. S. Army.
Branner, John K. Medical Reserve Corps, U. S. A.
Brown, H. H., Pittsburgh, Pa. 121st Aero Squadron.
Burgren, A. W., Fort Riley, Kans. Capt. Engineers Reserve Corps.

Cannon, F. H., Spokane, Wash. Aviation Corps.
Caven, Elmer, St. Louis, Mo.
Chalfant, W. B., Pittsburgh, Pa. Officers' Reserve Corps.
Corwin, Eugene P., Chicago, Ills. U. S. Navy.
Cramer, Ambrose C., Chicago, Ills. Ensign U. S. Naval Reserves.
Crump, Edwin, Pittsburgh, Pa. Officers' Reserve Corps.

Danver, Charles, Pittsburgh, Pa. U. S. Navy.
Davis, Edgar C., Spokane, Wash. Engineering Corps.
Dehnert, John, St. Louis, Mo.
Dougher, James, Spokane, Wash. 2d Lieut. Coast Artillery.

Embury, Aymar II, New York City. Capt. of Engineers, Camouflage.

Farrier, C. W., Chicago, Ills. U. S. Army.

Gaus, Christopher A., Pittsburgh, Pa. Ambulance Corps, U. S. Army.
Graham, Linton J., St. Louis, Mo.

Hall, Henry, St. Louis, Mo.
Hamilton, H. C., Spokane, Wash. U. S. Navy.
Hatch, John Davis. Lieut. Coast Artillery, U. S. A.
Hatcher, Emmett J., Pittsburgh, Pa. 320th Regt., Camp Lee, Va.
Hays, J. Byers, Pittsburgh, Pa. Hospital Unit, S. L. F.
Hoffmann, Ray, St. Louis, Mo.
Hussman, Arthur, St. Louis, Mo.

Jabelonsky, Carl, Spokane, Wash. Capt. Quartermaster Corps.

Kann, Normad, Pittsburgh, Pa.
Kennedy, Wm. J., St. Louis, Mo.
Kern, Nathaniel C., Detroit, Mich. Camp Custer, Mich.
Kolbe, Arno, New York City. Capt. Engineer Officers' Reserve Corps.

Leavell, John C., Chicago, Ills. 1st Lieut. Engineer Corps, U. S. A.
Lindquist, Jos. B., Chicago, Ills. U. S. Naval Reserves.
Love, Robert J., Chicago, Ills. U. S. Construction Work.

Maenner, T. H., St. Louis, Mo.
Malmgren, Arthur, Spokane, Wash. U. S. Navy.
Manz, Franklin, Spokane, Wash. At Presidio.
Maqueen, James Ronald, Pittsburgh, Pa. 1st Penn. Ambulance Corps.
Maritz, R. E., St. Louis, Mo.
Marks, Alfred, Pittsburgh, Pa. Artillery.
Matthes, Carl E., Chicago, Ills. U. S. Naval Reserves.
McKay, J. B., Cedar Rapids, Iowa. 1st Lieut. Artillery Reserve Corps.
Mercier, A. T., Spokane, Wash. Washington State Guard.
Miller, J. C., Spokane, Wash. Navy Asst. Inspection of Construction.
Mills, E. O., St. Louis, Mo.
Mills, Kenneth, Spokane, Wash. National Guard Cavalry Troop.
Mitchell, Russell P., Pittsburgh, Pa. Ambulance Field Service in France.
Monfalcone, Norman D., Pittsburgh, Pa.
Monroe, John K., Denver, Colo. U. S. Navy.
Morin, H. J., Chicago, Ills. Royal Flying Corps, Canada.
Morrison, Earl W., Spokane, Wash. Capt. Quartermaster Corps.

Narbett, James T. Capt. Engineers Reserve Corps, U. S. A.
Newsom, Sidney B. Engineers Reserve Corps, U. S. A. (First Lieut.).
Nickerson, Henry C., Denver, Colo. Major of Artillery.
Norberg, Ernest L., Vancouver Barracks. First Lieut. Engineers Reserve Corps.

Oertel, David H., Pittsburgh, Pa. Naval Coast Defense.

Perry, Harold, Spokane, Wash. Con. Engineering.
Pierce, Gilbert, Spokane, Wash. Washington National Guard.

Ramsay, Percy, St. Louis, Mo.
Reed, Walter D. Capt. Engineers Reserve Corps, U. S. A.

Sabin, Henry P., Denver, Colo. Capt. of Infantry.
Schwab, Harvey A., Pittsburgh, Pa. Officers' Reserve Corps.
Scully, Rees T., Pittsburgh, Pa. Automobile Service in France.
Shipley, Thomas, New York. 1st Lieut. Infantry.
Shook, George B., Pittsburgh, Pa. National Guard Penn.
Simpson, R. S., Pittsburgh, Pa.
Smith, Brandon, Pittsburgh, Pa. Officers' Reserve Corps.
Starrett, William A., New York City. Major.
Stewart, S. P., Pittsburgh, Pa.

Thayer, Samuel H., Pittsburgh, Pa. U. S. Marine in France.
Topp, Howard A., Senior Cornell School Architecture. Naval Reserve.
Tracy, Evarts, New York City. Major Engineer Officers' Reserve Camouflage Corps.
Tufts, Charles, Pittsburgh, Pa. Officers' Reserve Corps.
Turner, Robert, Spokane, Wash. Washington State Guard.

Wadleton, Thomas D., Jr., New York. Capt. Cavalry.
Webb, A. C., St. Louis, Mo.
Wentworth, John, Chicago, Ills. U. S. Aviation Corps.
Wheeler, W. H., San Diego, Cal. Officers' Reserve Corps.
Wiener, Jerome L., Chicago, Ills. U. S. Naval Reserves.
Williamson, George H., Denver, Colo. Capt. Engineers Corps.
Wilson, J. Vernon, Pittsburgh, Pa.

Young, Ridgely, St. Louis, Mo.

A CALL TO SERVICE FOR THOSE NOT ABLE TO SERVE IN ARMY OR NAVY

September 27, 1917.

Practically every institution in the country which trains professional men has signed the call to those young men who are under military and to those who are unable for other reasons to serve their country in Army or Navy, to consider the equally patriotic services in the field of applied science. Here architecture will play an important part both now and when the war is over. Every architectural school in the country should be filled to its capacity with young men fitting themselves for service to their country.

R. Clipston Sturgis, *Chairman*,
Committee on Education, American Institute of Architects.

Book Reviews

Decorative Elements in Architecture. Random observations on the Eternal Fitness of Things from a Decorative Point of View. By William Franklyn Paris, L.H.D., Honorary Fellow Metropolitan Museum of Art, member of the Architectural League, Lecturer on Fine Arts, University of Pennsylvania. John Lane Co., New York. 8vo. Cloth, $15.00.

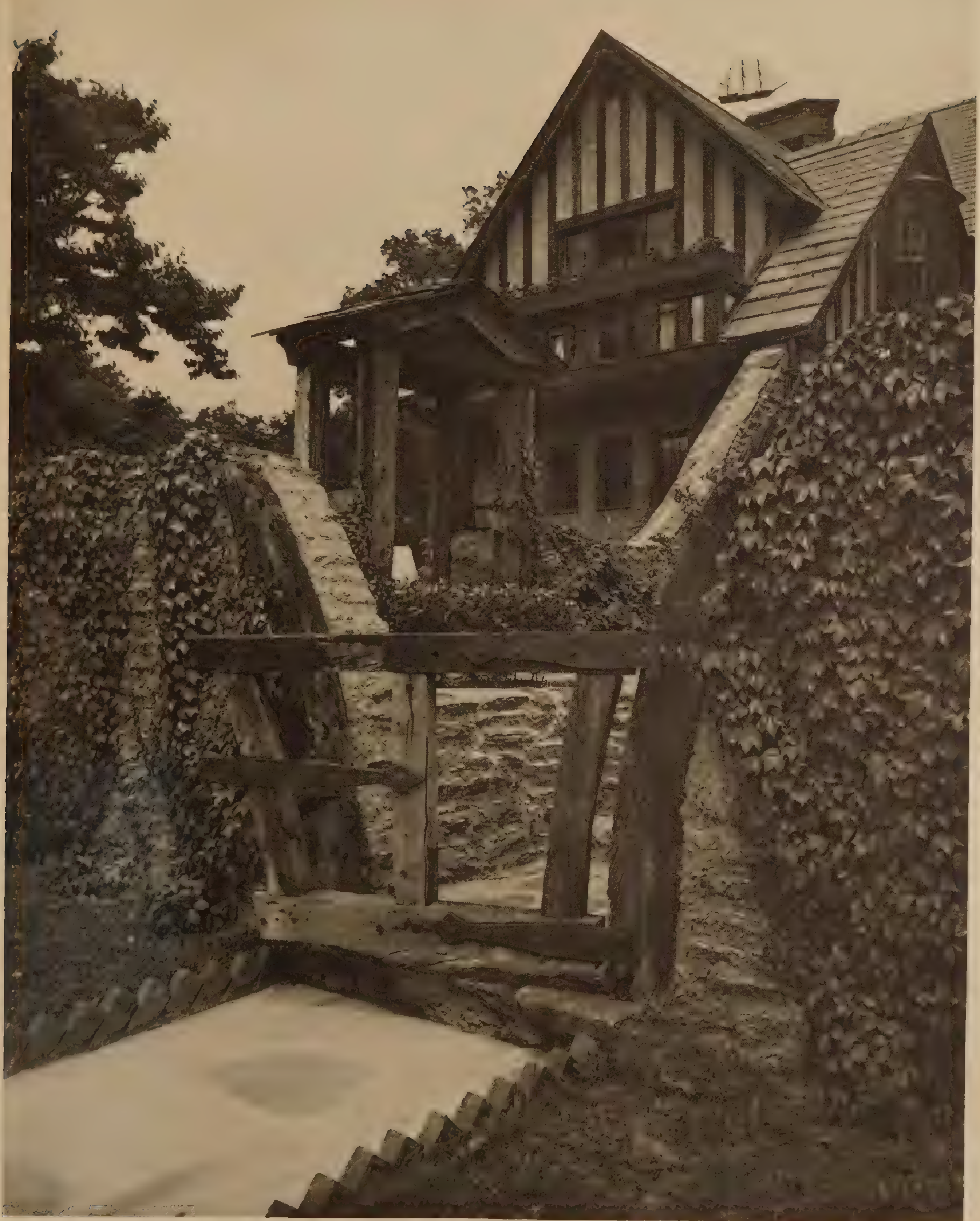
Chapters on "Rationalism in Art," "Guessing and Knowing," "The Inheritance of the Past," "Principles and Essentials," "The Development of Ornament," "Decorative Elements," "The Art of Penelope," "Painted Glass," "Wrought Iron." There are a number of admirable illustrations effectively printed in a rich brown ink.

Announcement

MR. PERCY L. FOWLER, of the former firm of Klemann & Fowler, of Trenton, N. J., and Mr. George W. Seaman wish to announce the formation of a partnership for the practice of architecture, with offices on the third floor, Broad Street Bank Building, Trenton, N. J.

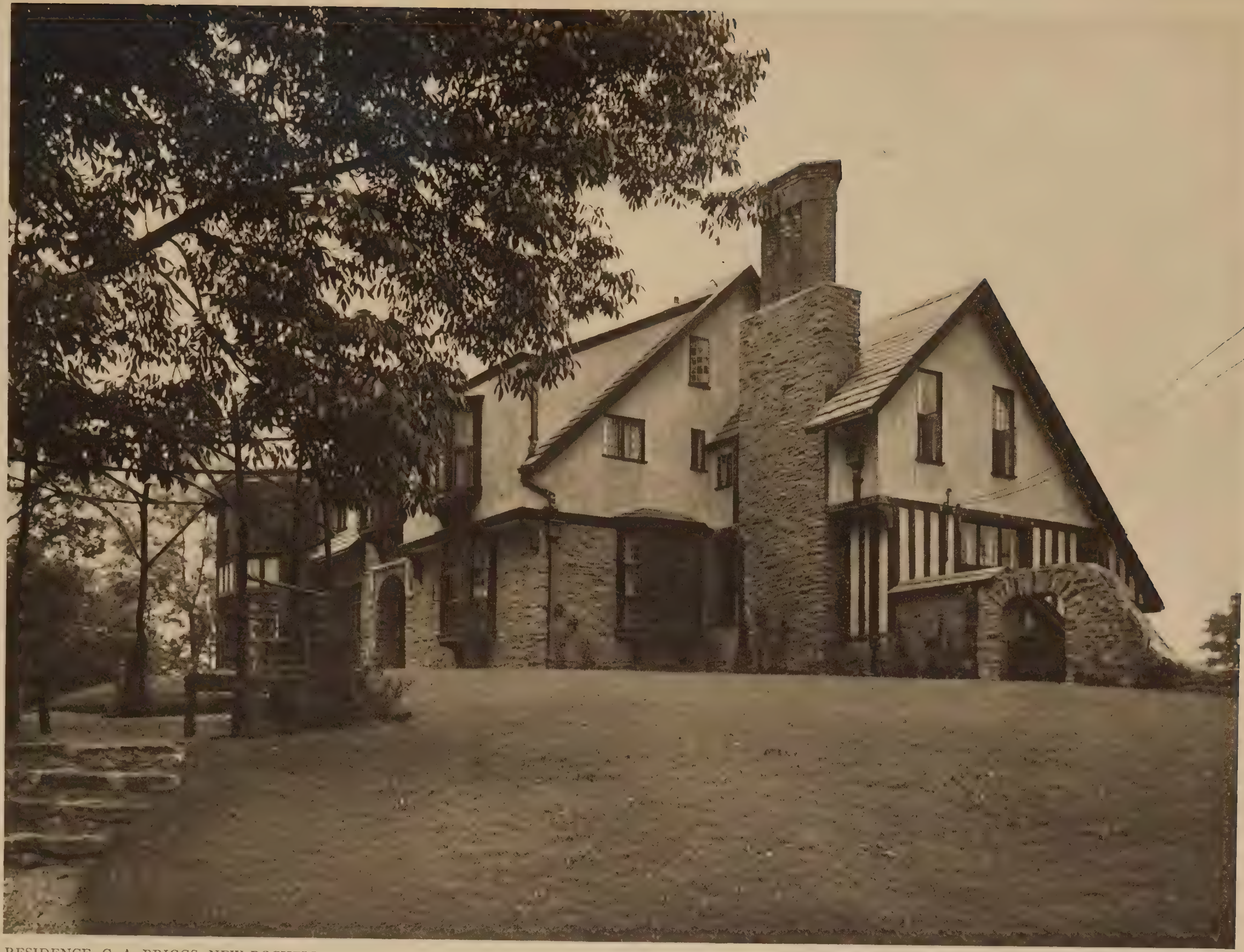
The firm is to be known as Fowler & Seaman, and is to have Mr. Albert E. Micklewright as an associate member

The firm will be pleased to receive manufacturers' catalogues and samples.



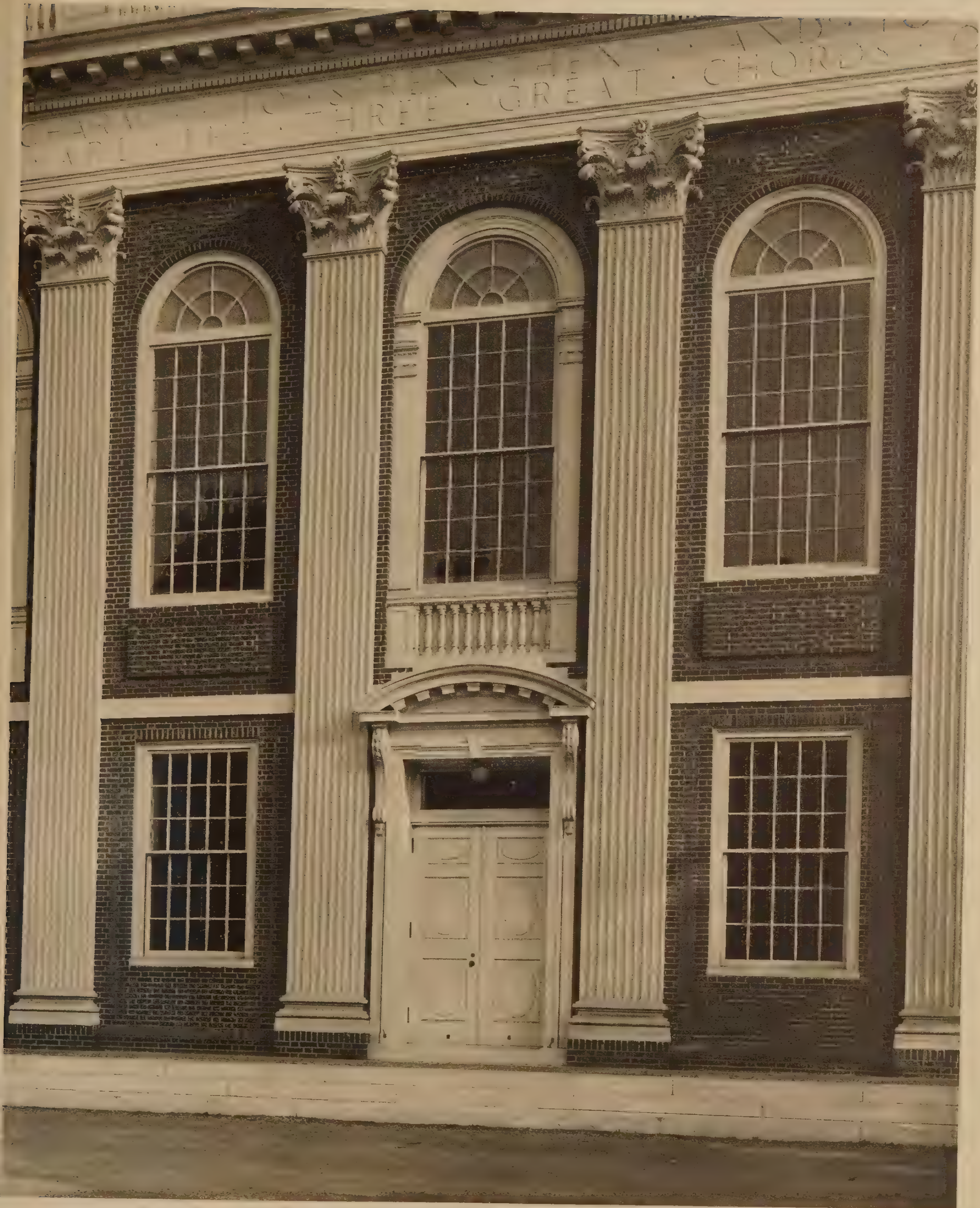
DETAIL, RESIDENCE, C. A. BRIGGS, NEW ROCHELLE, N. Y.

Henry G. Morse, Architect.



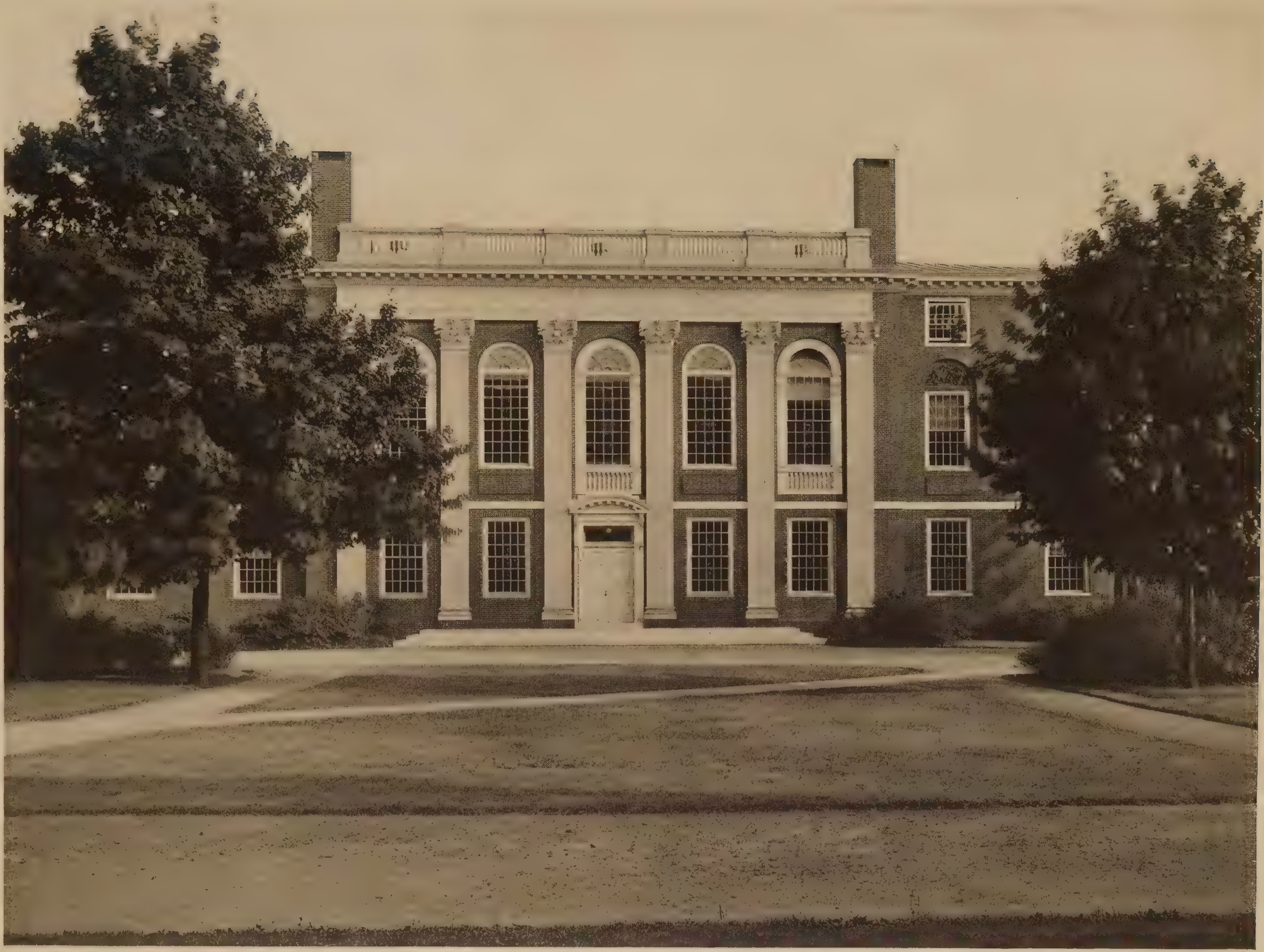
RESIDENCE, C. A. BRIGGS, NEW ROCHELLE, N. Y.

Henry G. Morse, Architect.



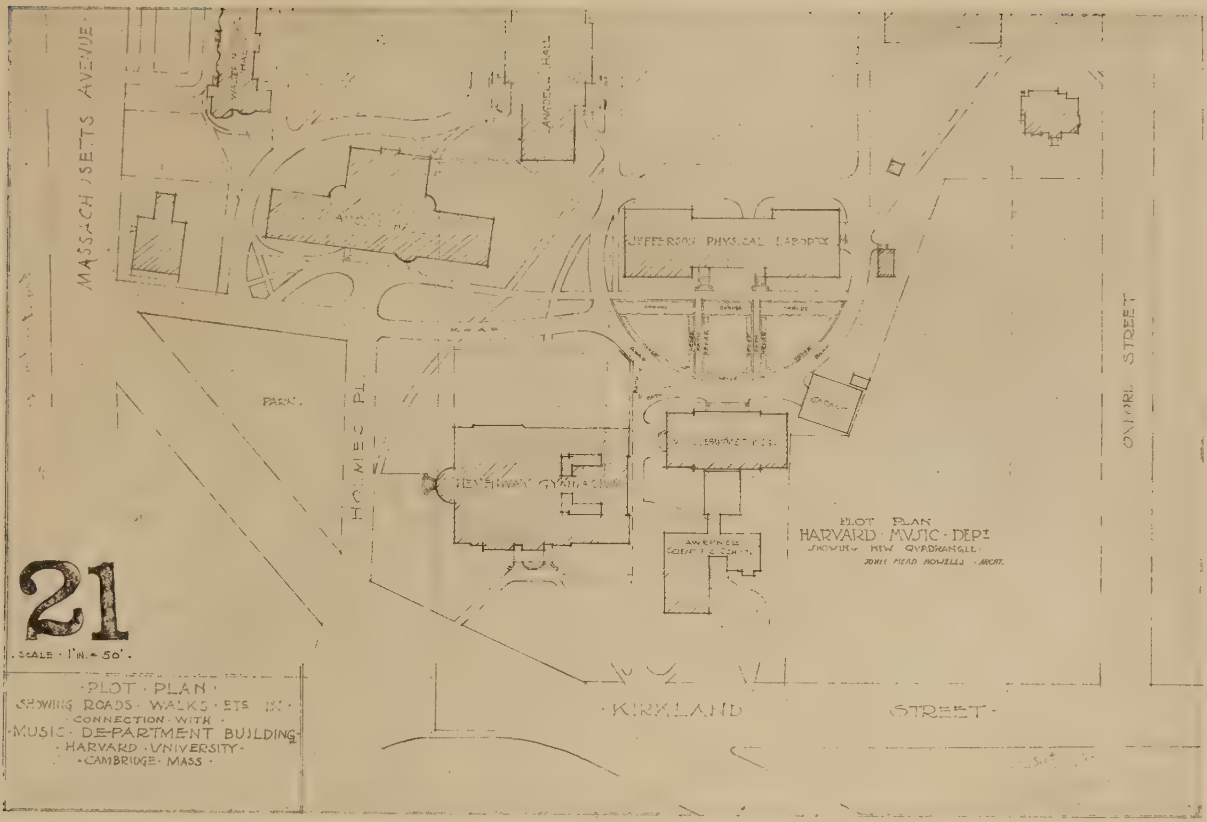
ENTRANCE DETAIL, MUSIC DEPARTMENT BUILDING, HARVARD UNIVERSITY.

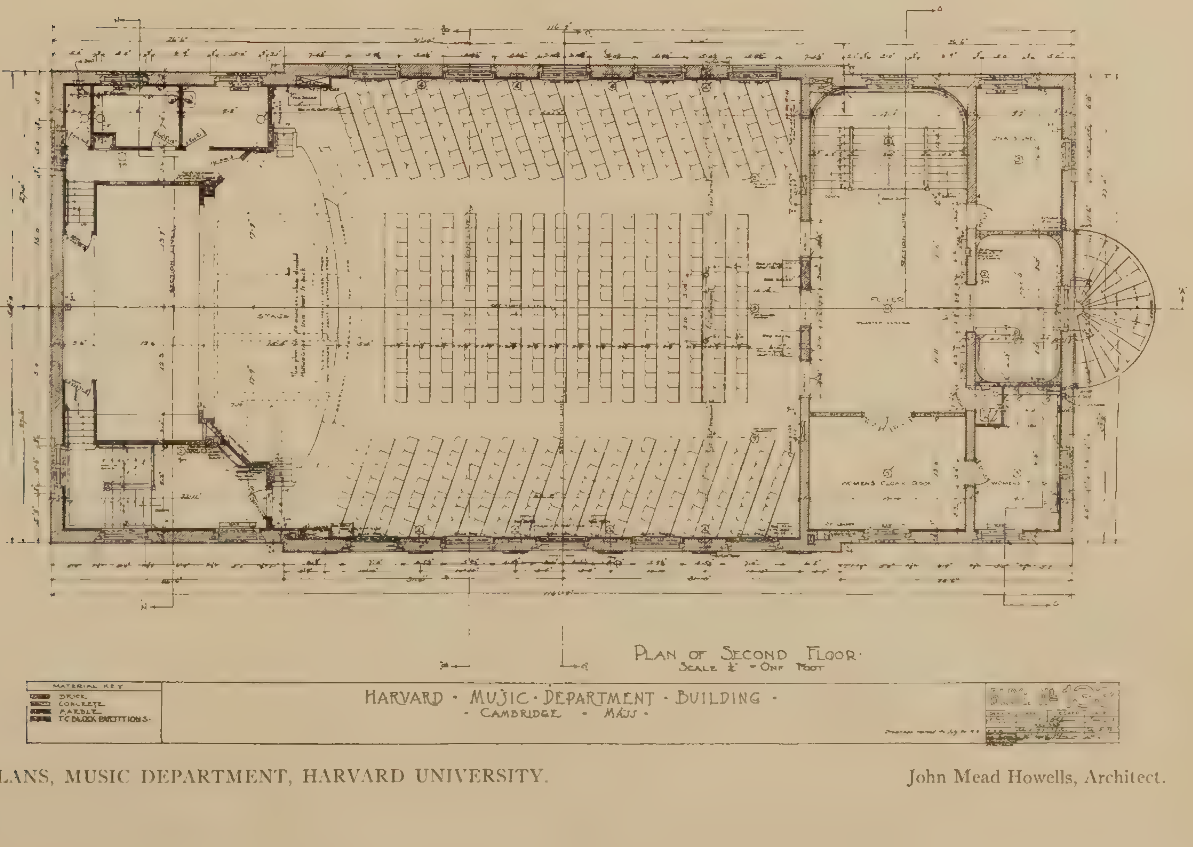
John Mead Howells, Architect.



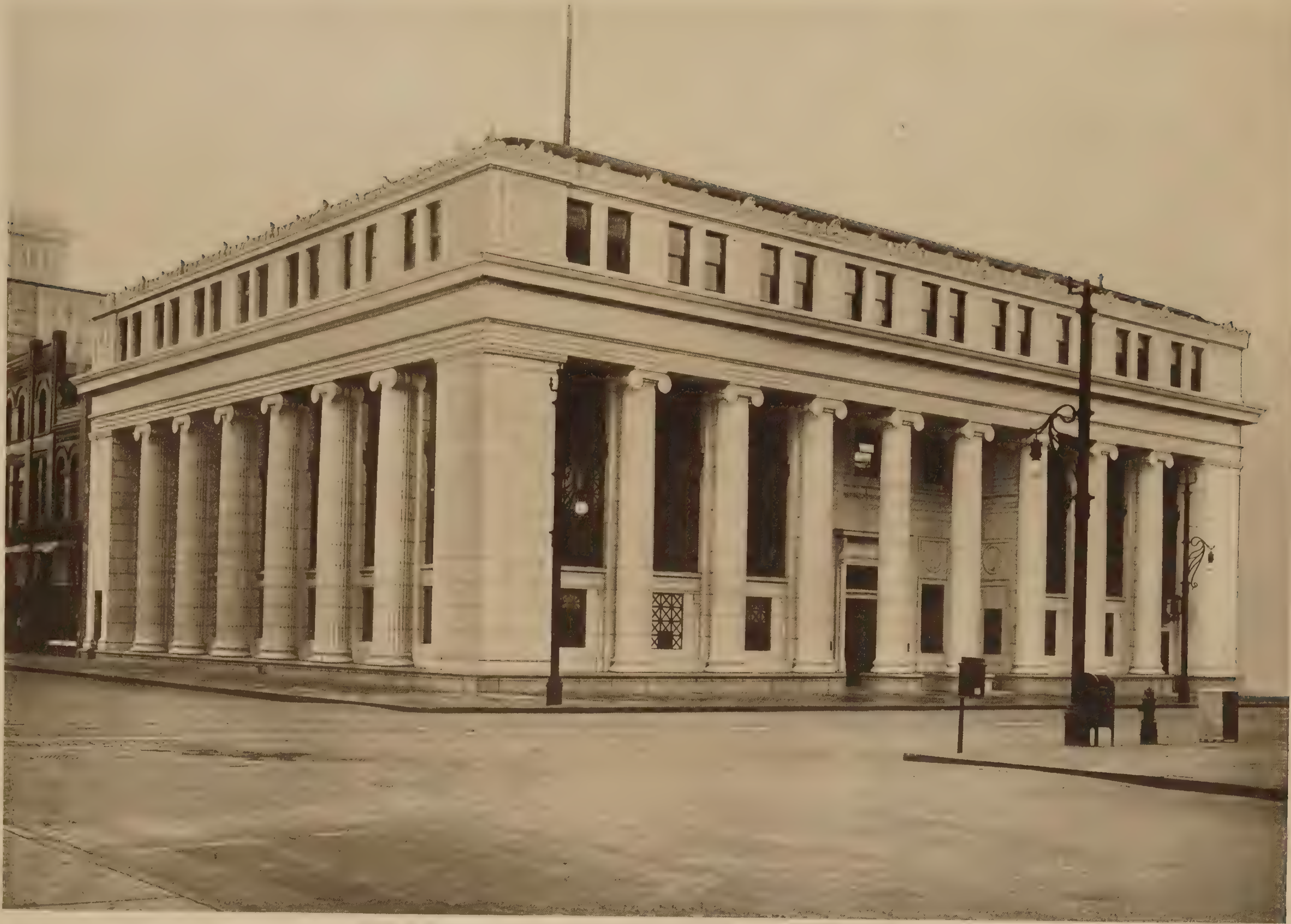
MUSIC DEPARTMENT BUILDING, HARVARD UNIVERSITY.

John Mead Howells, Architect.



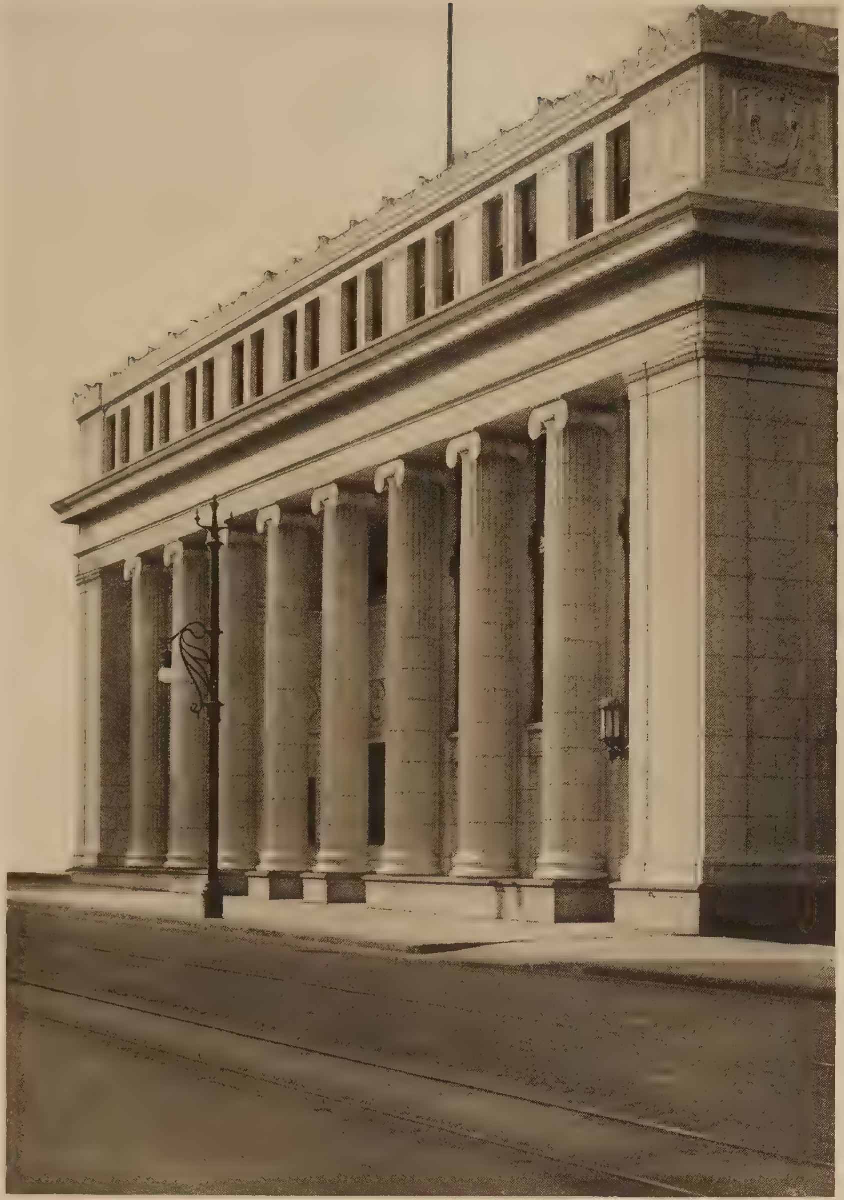


PLANS, MUSIC DEPARTMENT, HARVARD UNIVERSITY. John Mead Howells, Architect.

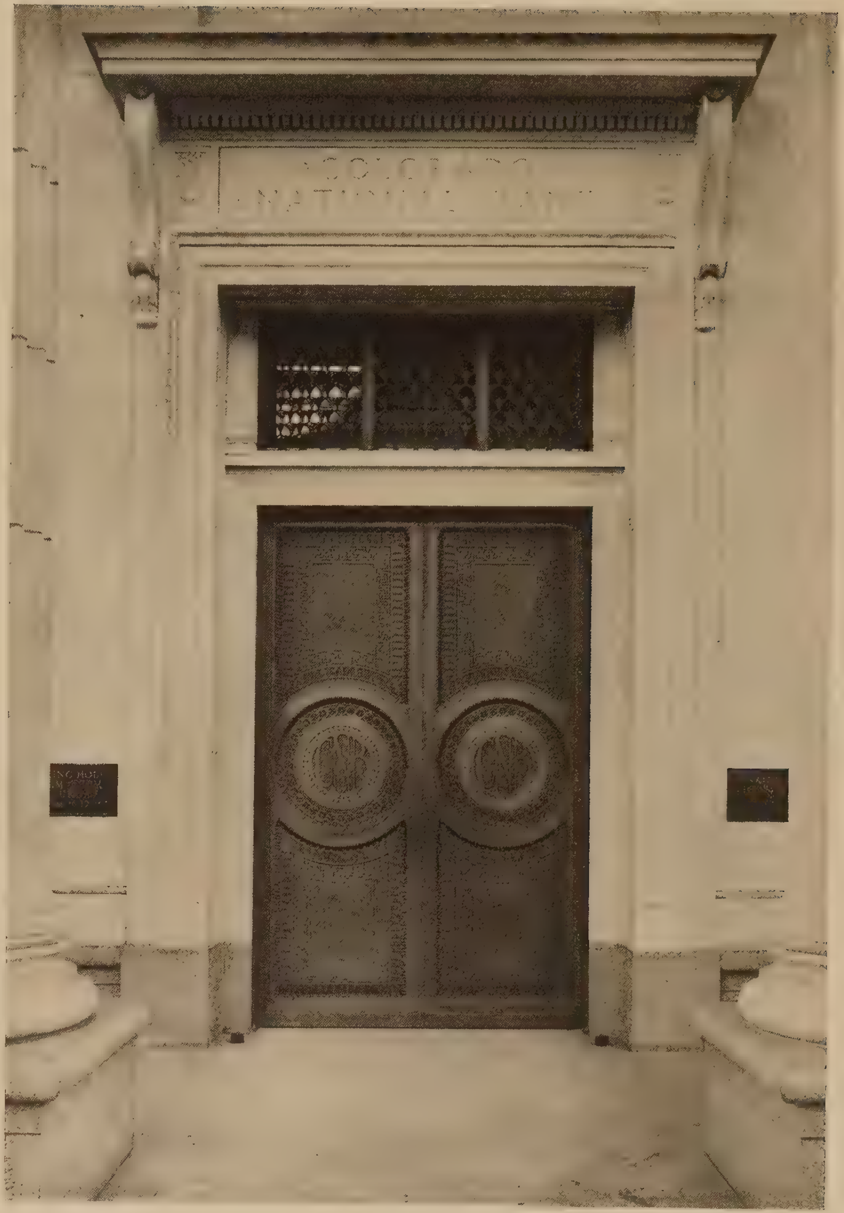


COLORADO NATIONAL BANK, DENVER, COLO.

W. E. and A. A. Fisher, Architects.



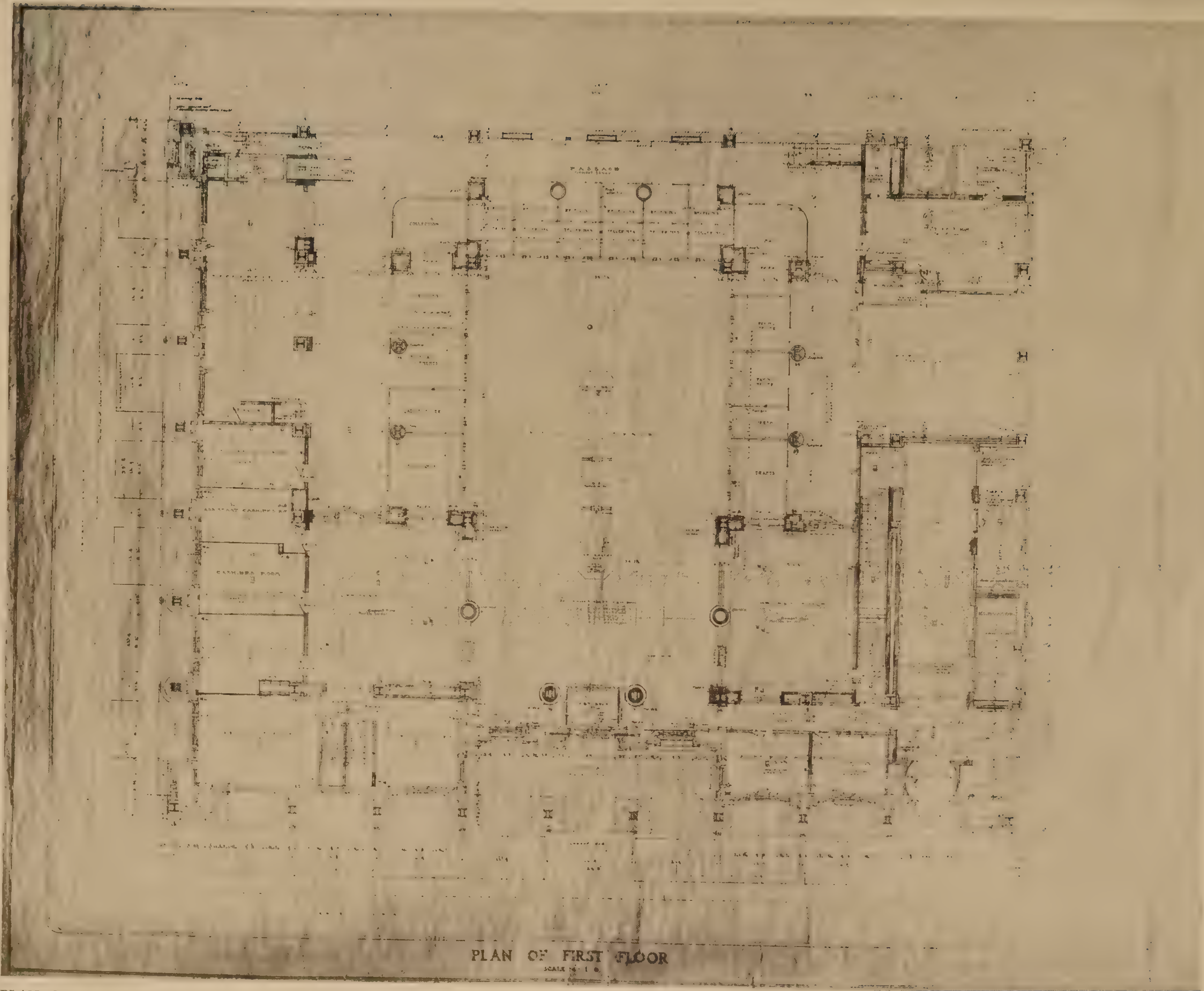
DETAIL.



ENTRANCE DOOR.

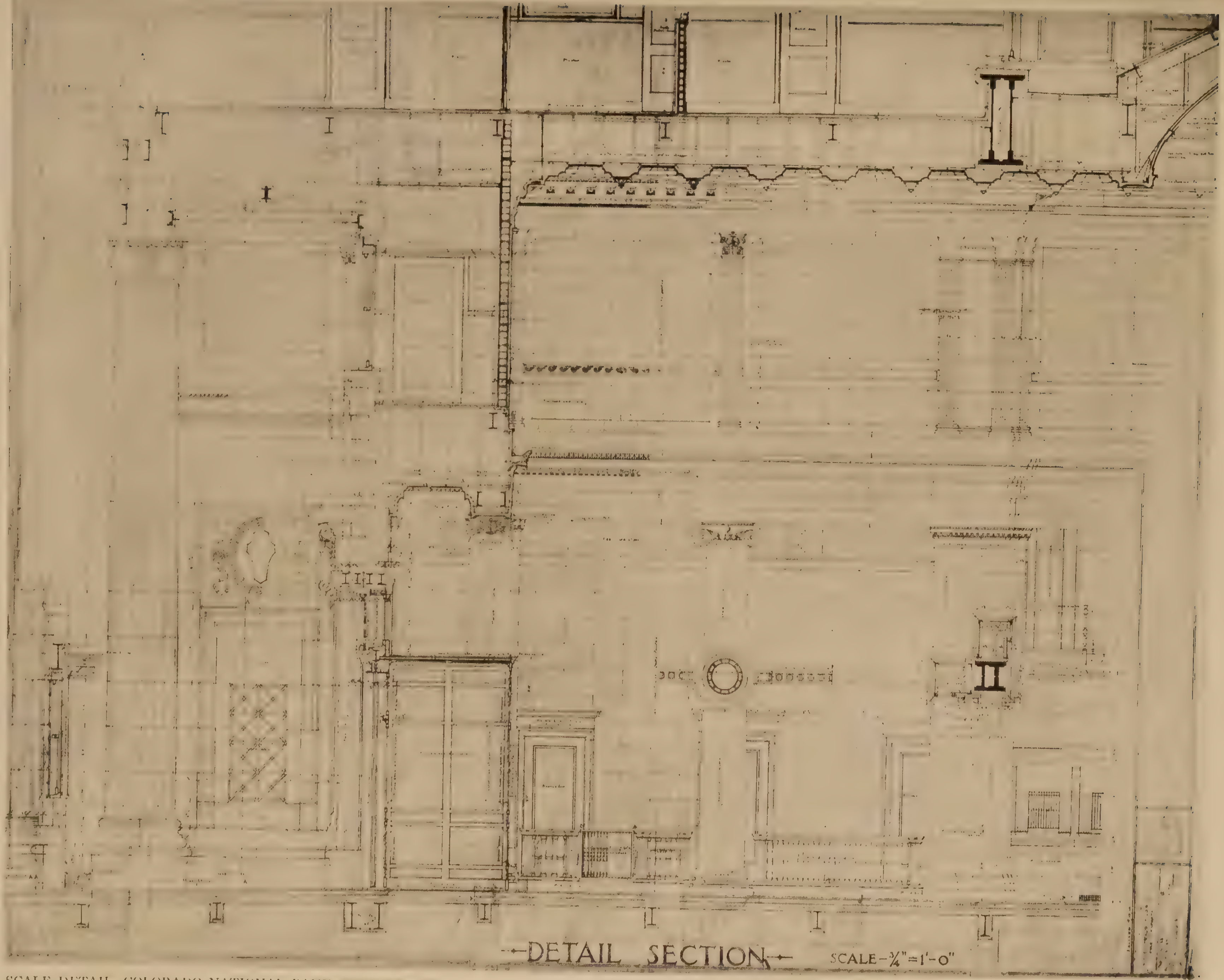
W. E. and A. A. Fisher, Architects.

COLORADO NATIONAL BANK, DENVER, COLO.



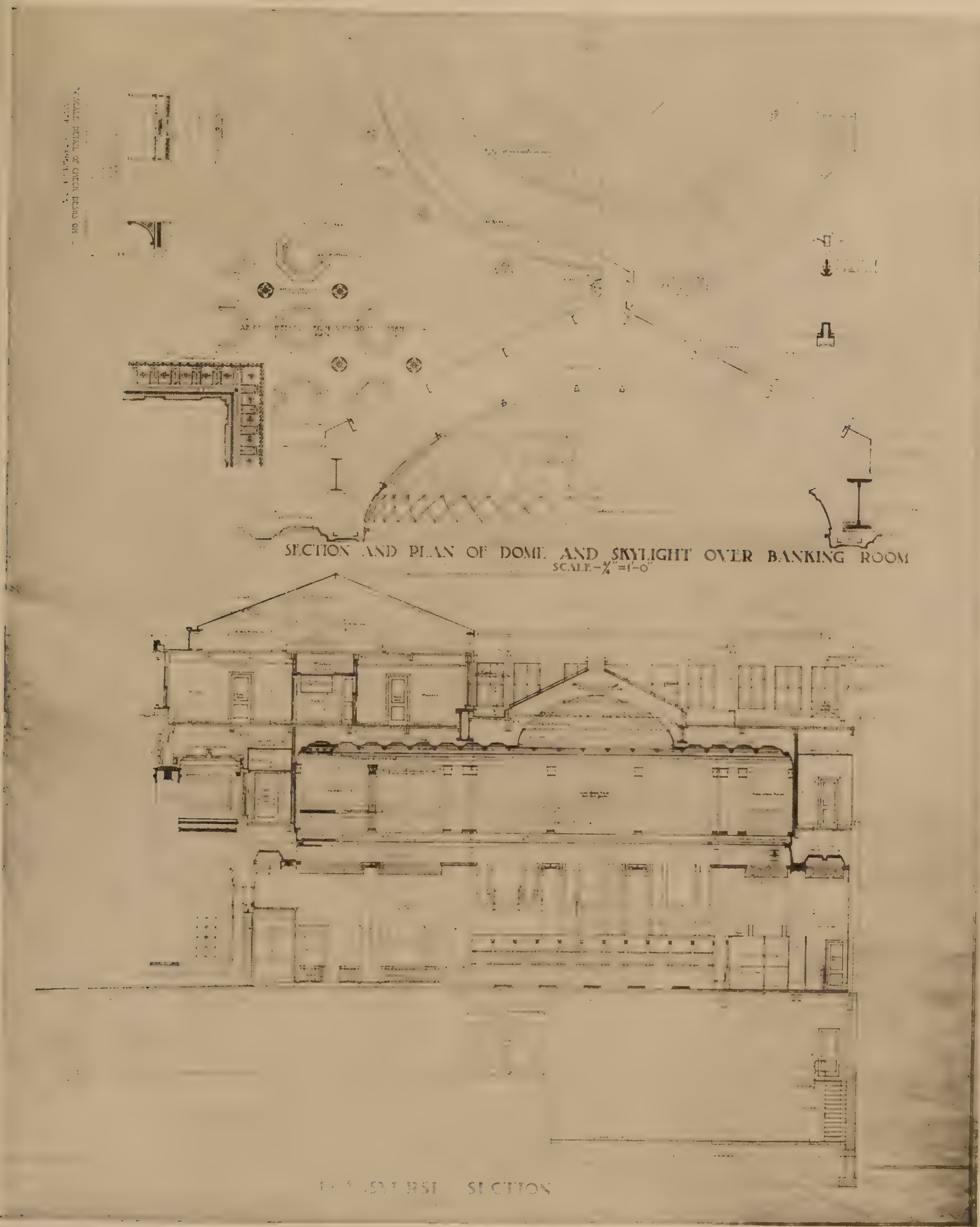
PLAN, COLORADO NATIONAL BANK, DENVER, COLO.

W. E. and A. A. Fisher, Architects.



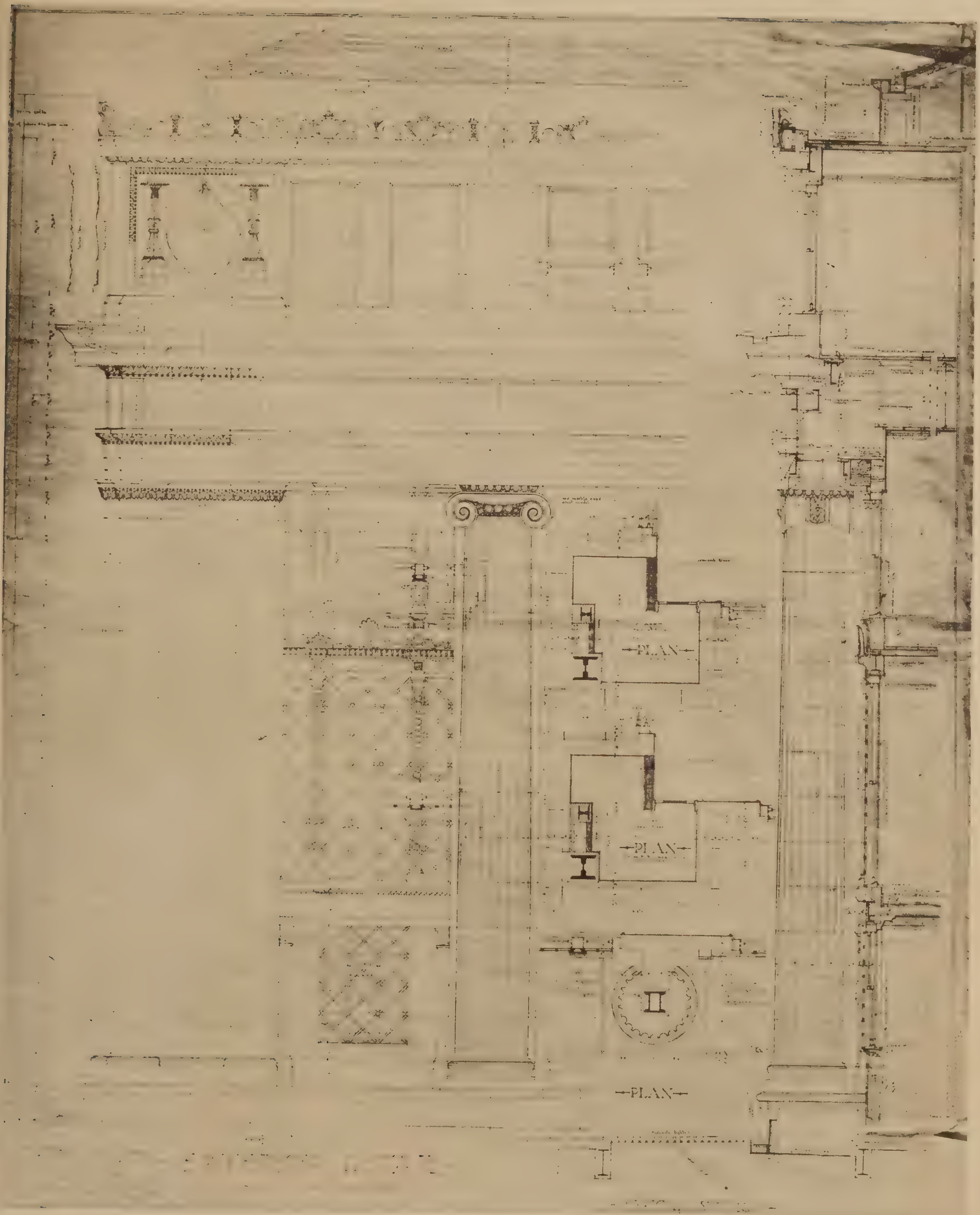
SCALE DETAIL, COLORADO NATIONAL BANK, DENVER, COLO.

W. E. and A. A. Fisher, Architects.


SCALE DETAIL OF CHECK DESKS ON
SECTION AND PLAN OF DOME AND SKYLIGHT OVER BANKING ROOM
SCALE—¼"=1'-0"
TRANSVERSE SECTION

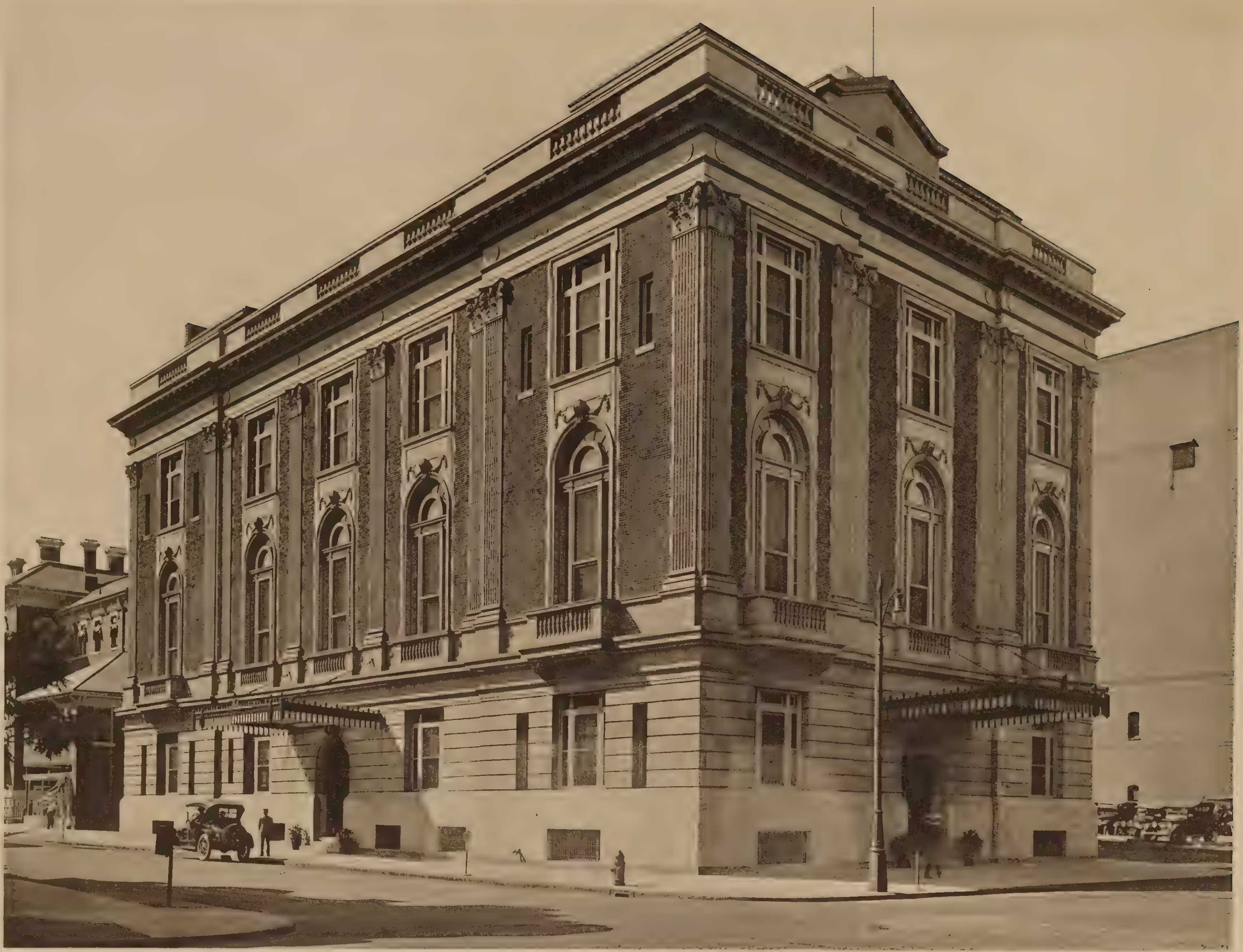
SCALE DETAIL, COLORADO NATIONAL BANK, DENVER, COLO.

W. E. and A. A. Fisher, Architects.



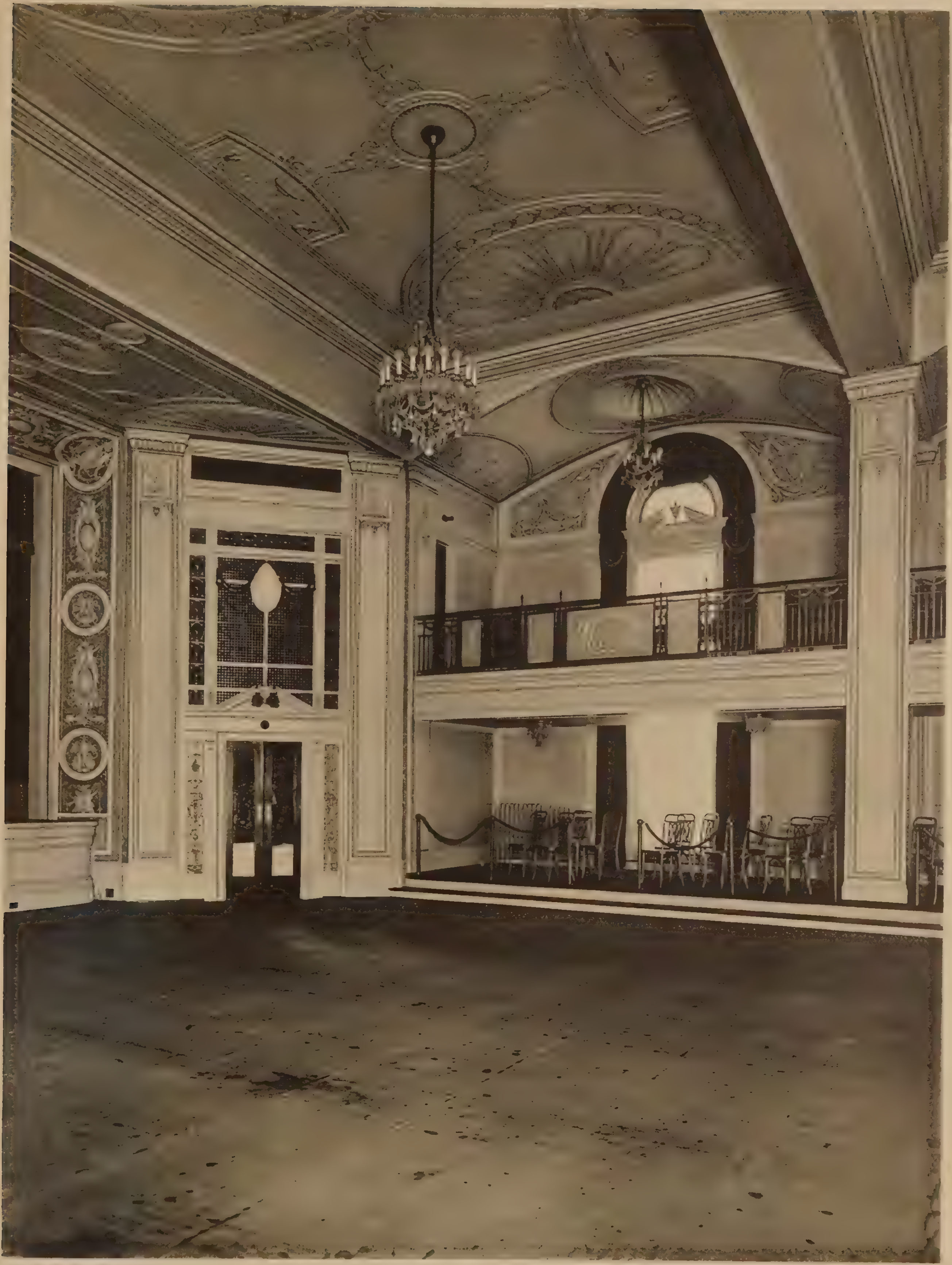
SCALE DETAIL, COLORADO NATIONAL BANK, DENVER, COLO.

W. E. and A. A. Fisher, Architects.



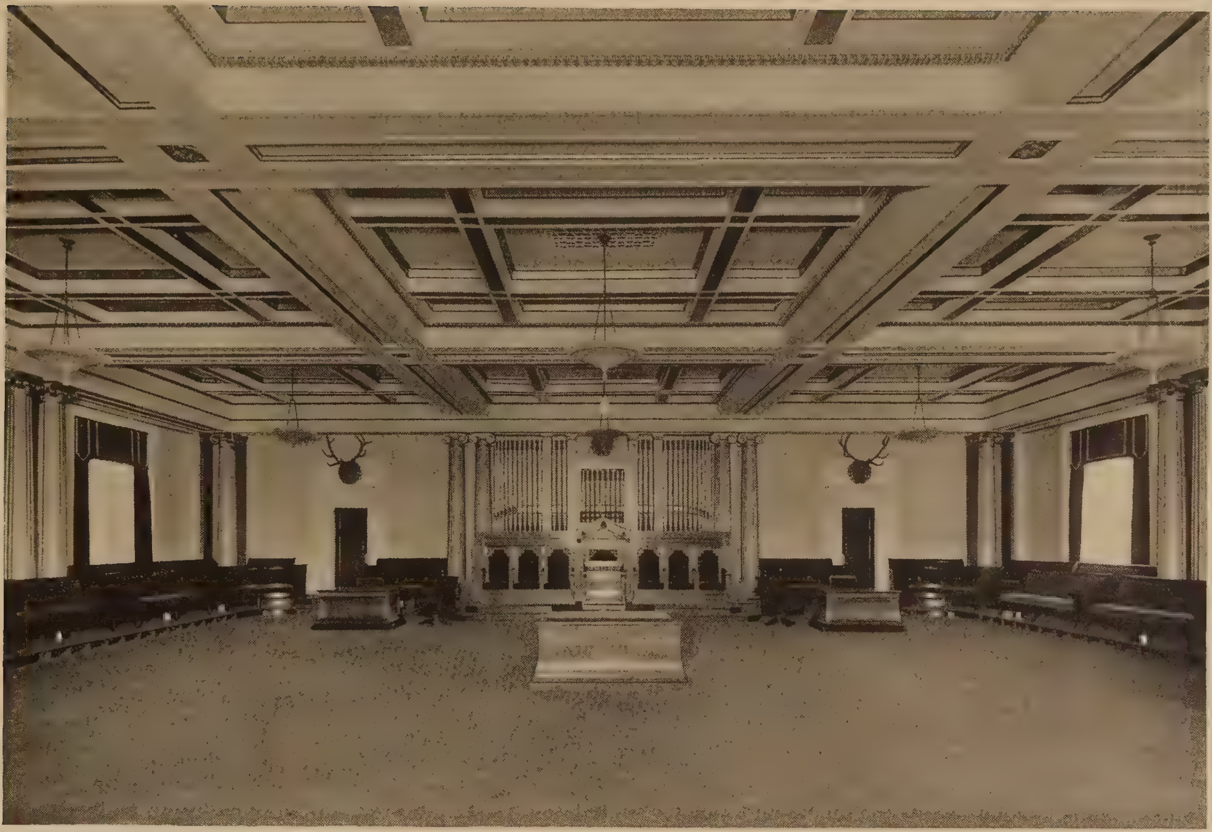
ELKS CLUB BUILDING, DETROIT, MICH.

Van Leyen & Schilling, Architects.

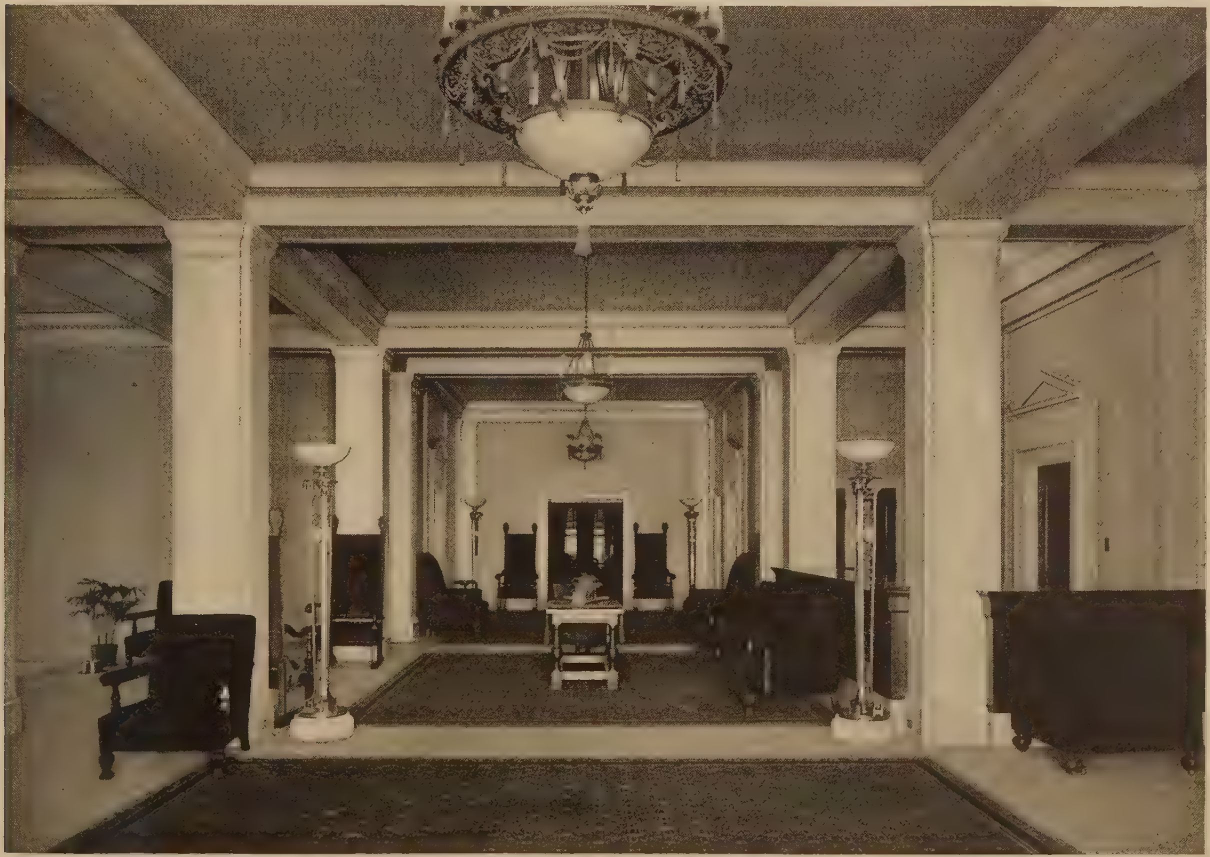


DETAIL, AUDITORIUM, ELKS CLUB BUILDING, DETROIT, MICH.

Van Leyen & Schilling, Architects.



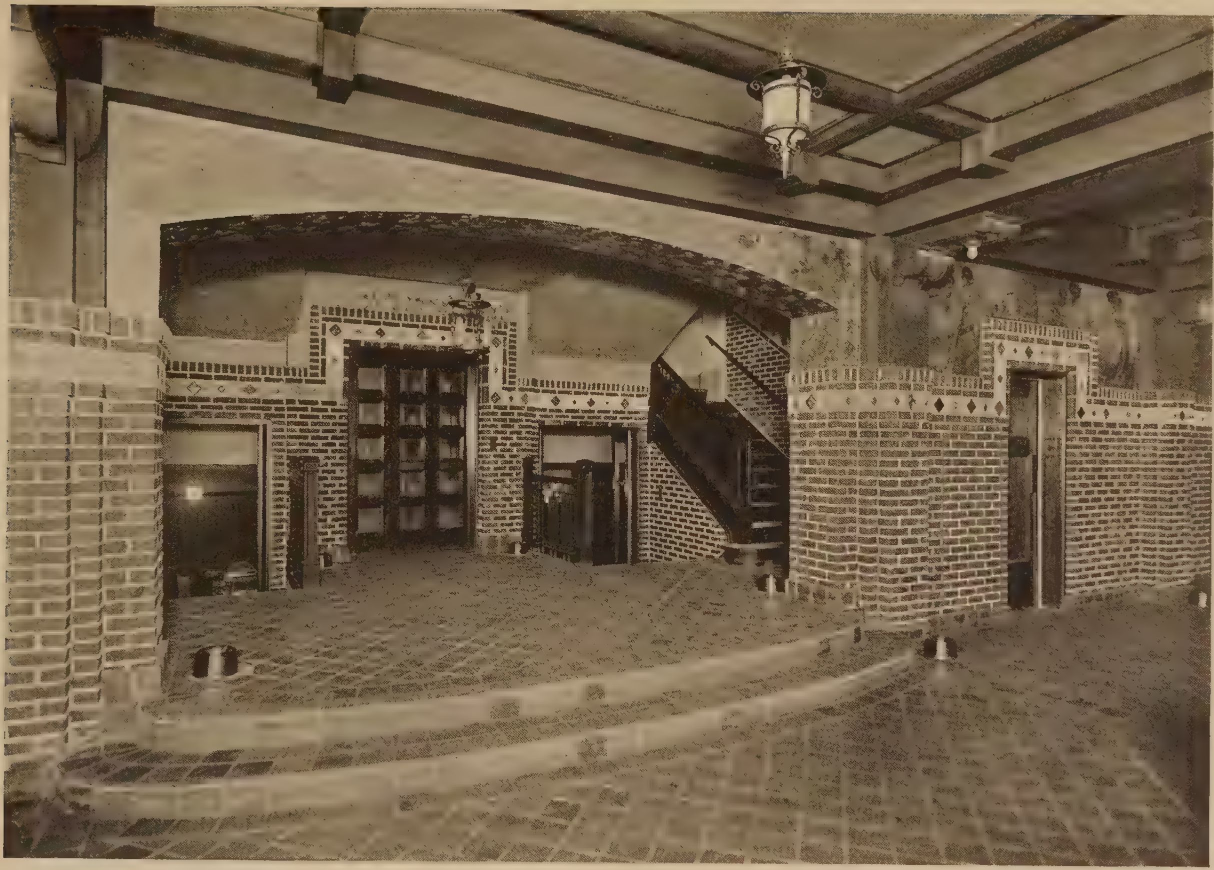
LODGE ROOM.



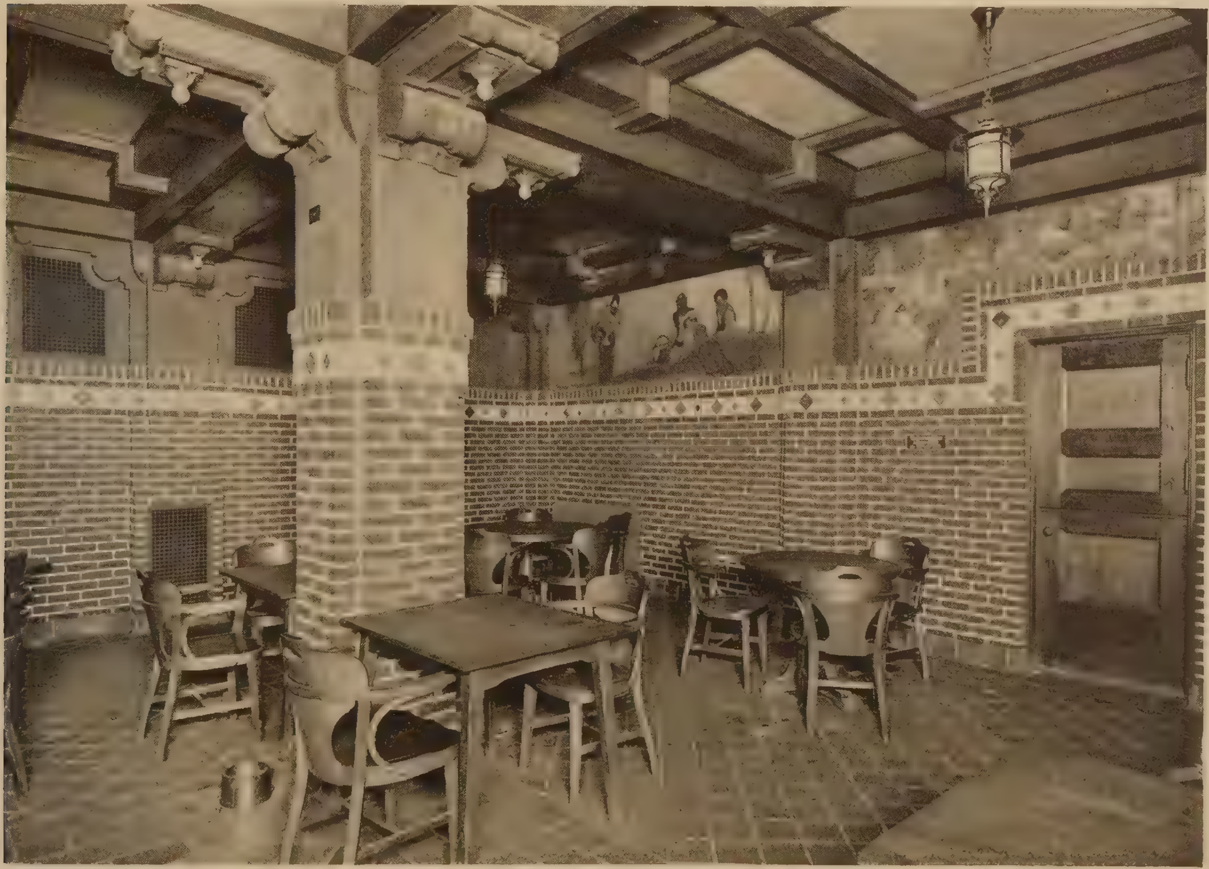
MAIN LOBBY.

Van Leyen & Schilling, Architects.

ELKS CLUB BUILDING, DETROIT, MICH.



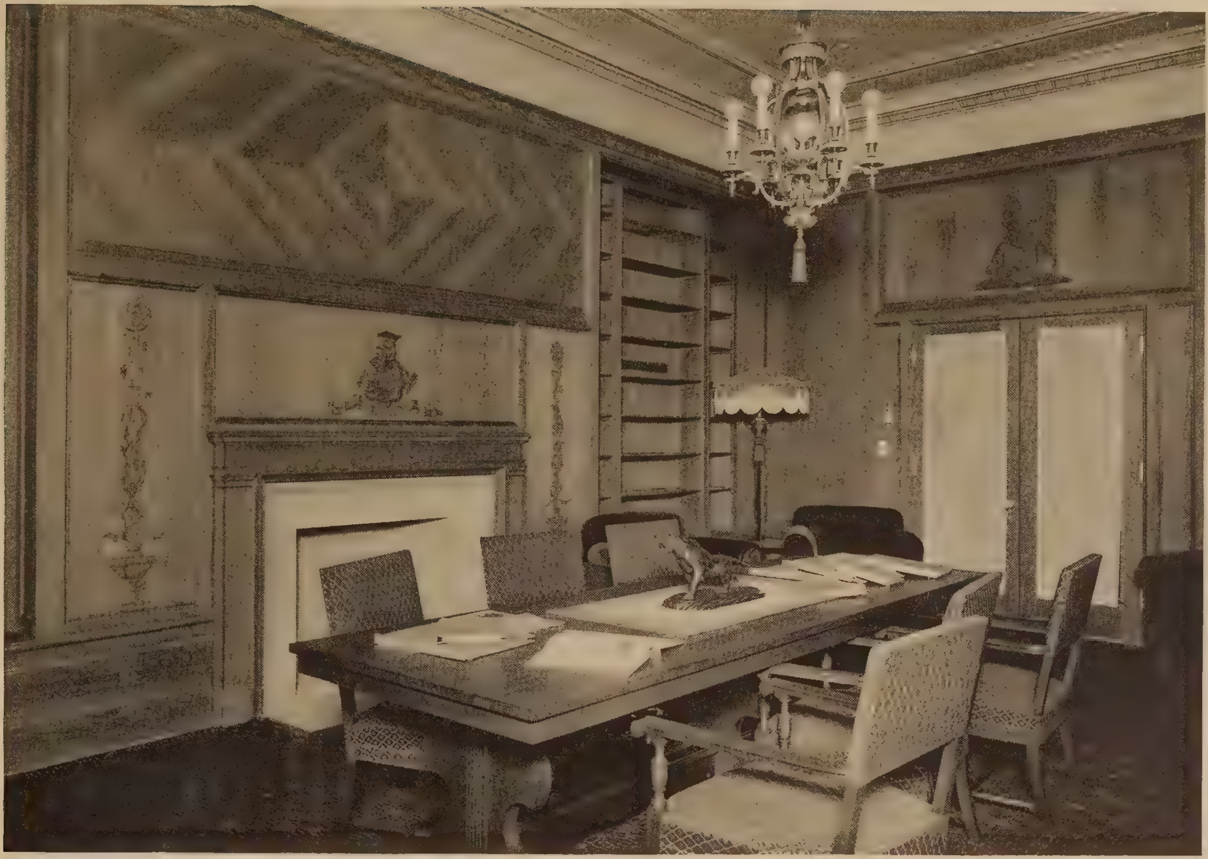
STAGE IN GRILL ROOM.



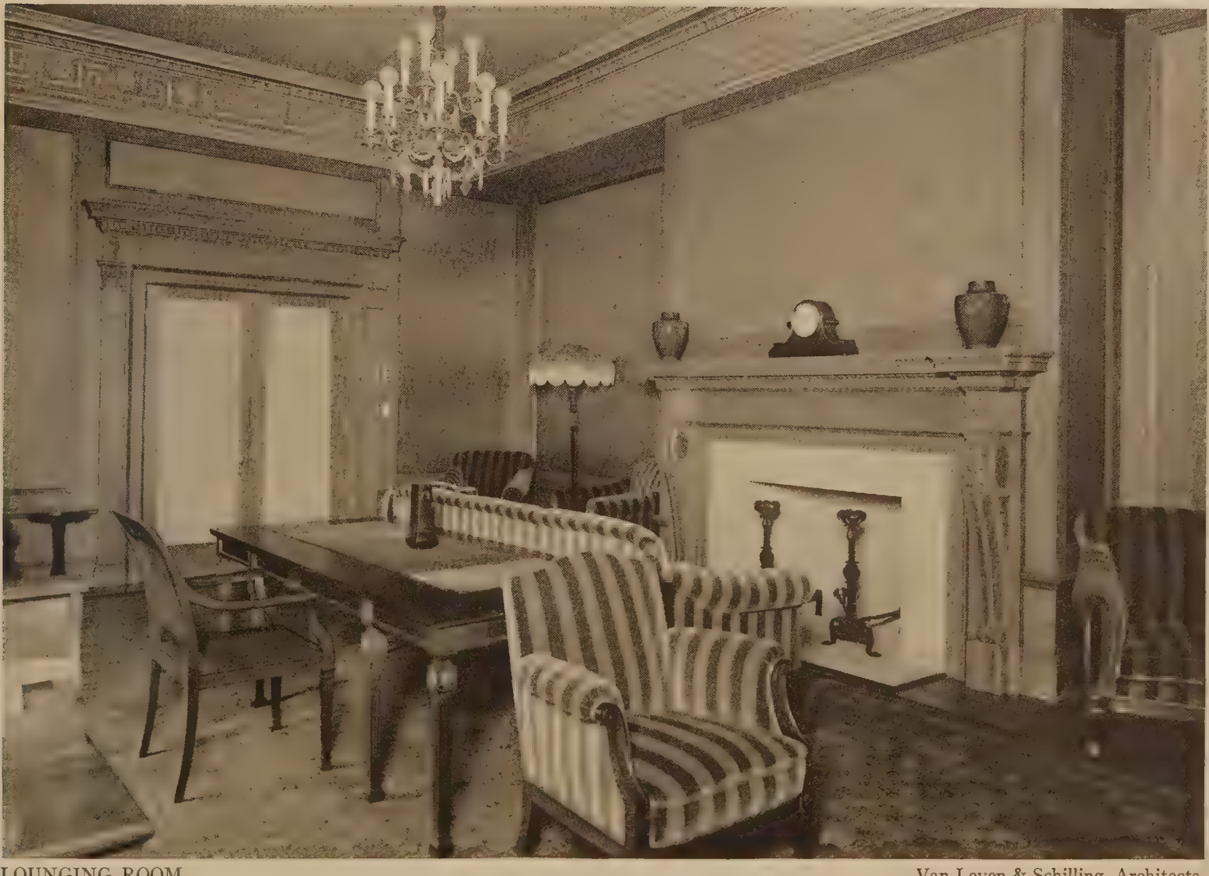
CORNER IN GRILL ROOM.

ELKS CLUB BUILDING, DETROIT, MICH.

Van Leyen & Schilling, Architects.



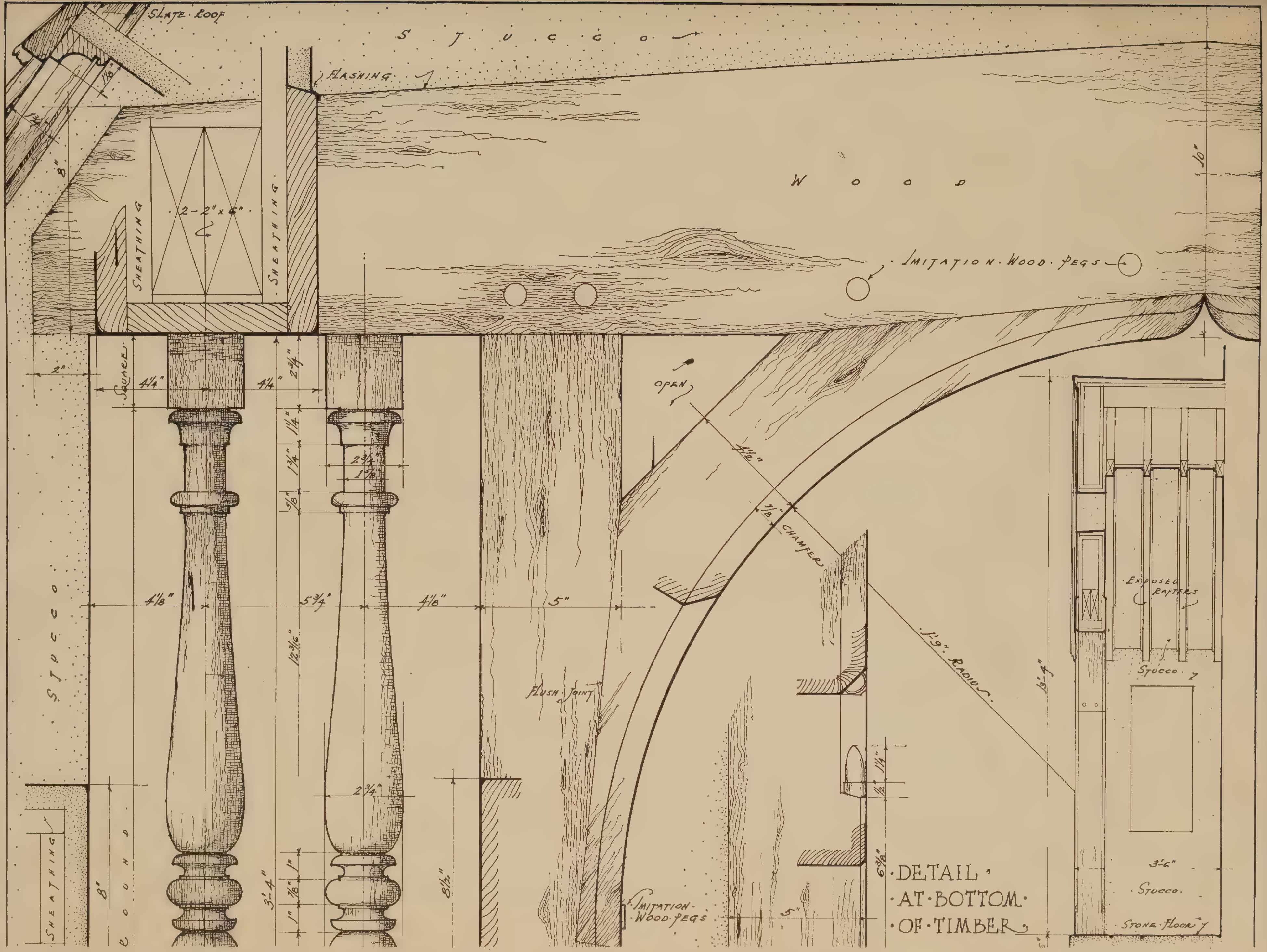
LIBRARY.

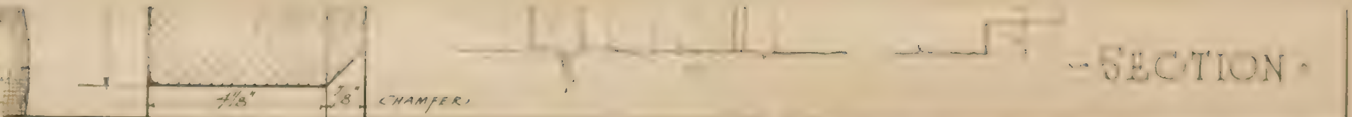


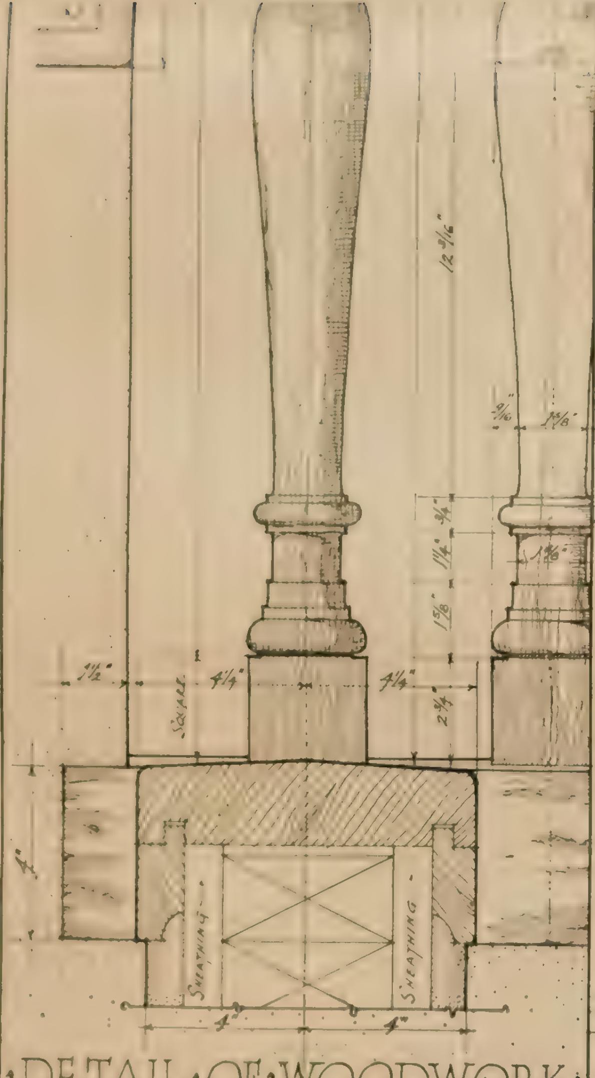
LOUNGING ROOM.

ELKS CLUB BUILDING, DETROIT, MICH.

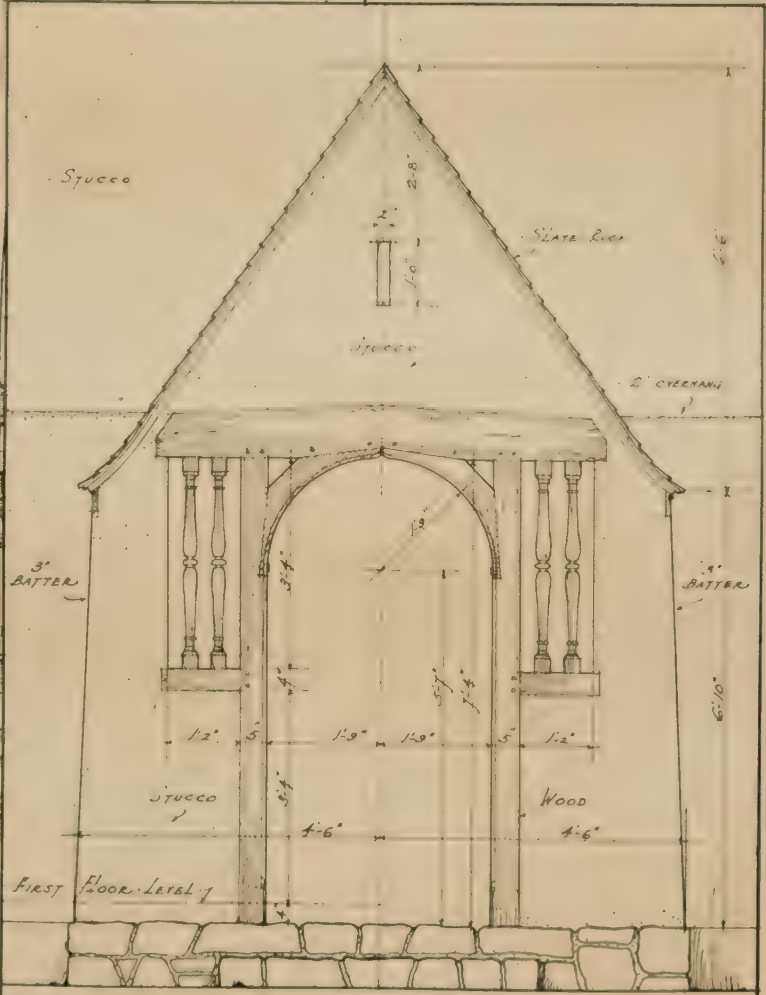
Van Leyen & Schilling, Architects.


·DETAIL·
·AT·BOTTOM·
·OF·TIMBER

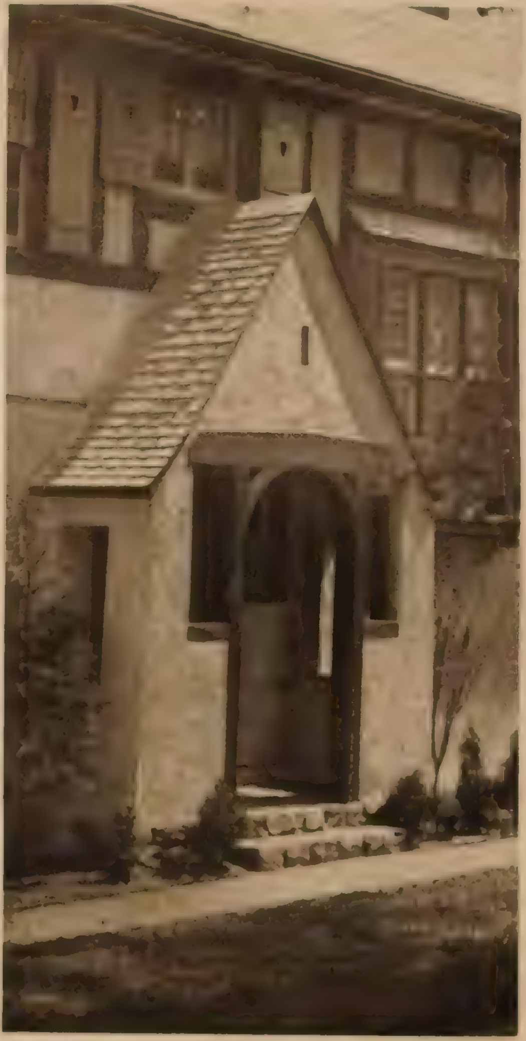




·DETAIL·OF·WOODWORK·
·3·INCH·SCALE·



·THREE·EIGHTHS·INCH·SCALE·ELEVATION·

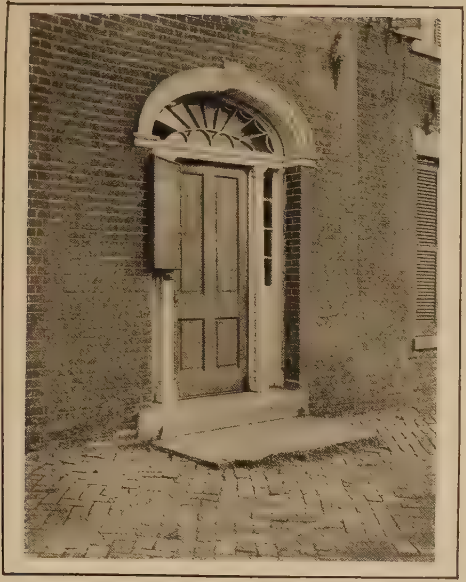


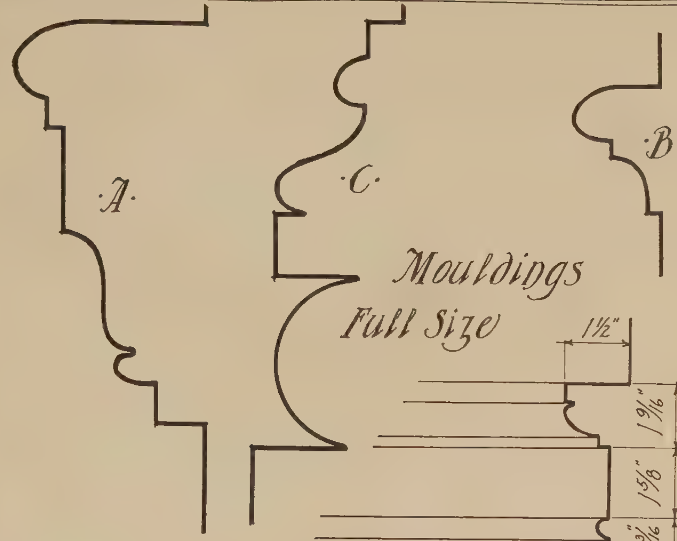
·"ARCHITECTVRE" SERIES·
·OF·
·MEASVRED·DETAILS·

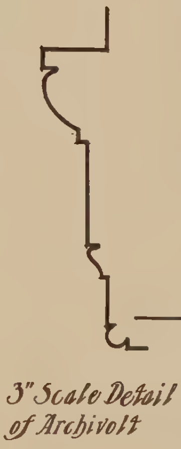
·ENTRANCE·DOORWAY·
·HOVSE·AT·KEW·GARDENS·L·I·

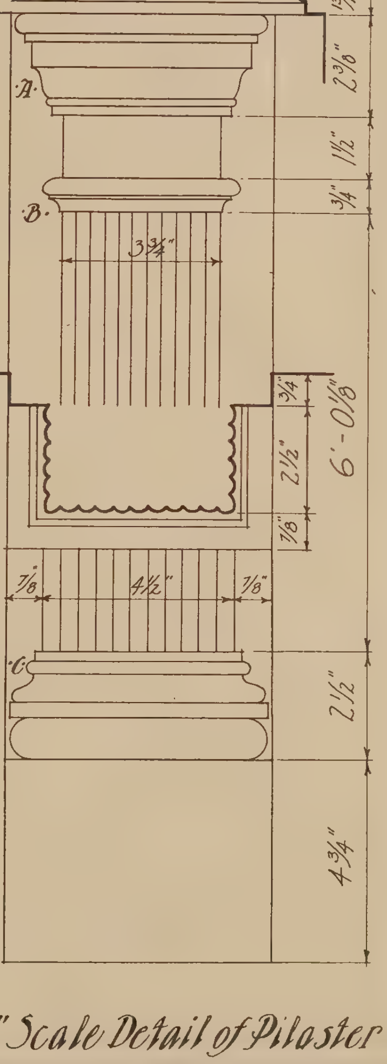
·WALTER·McQVADE· ·ARCH'T· ·N·Y·C·

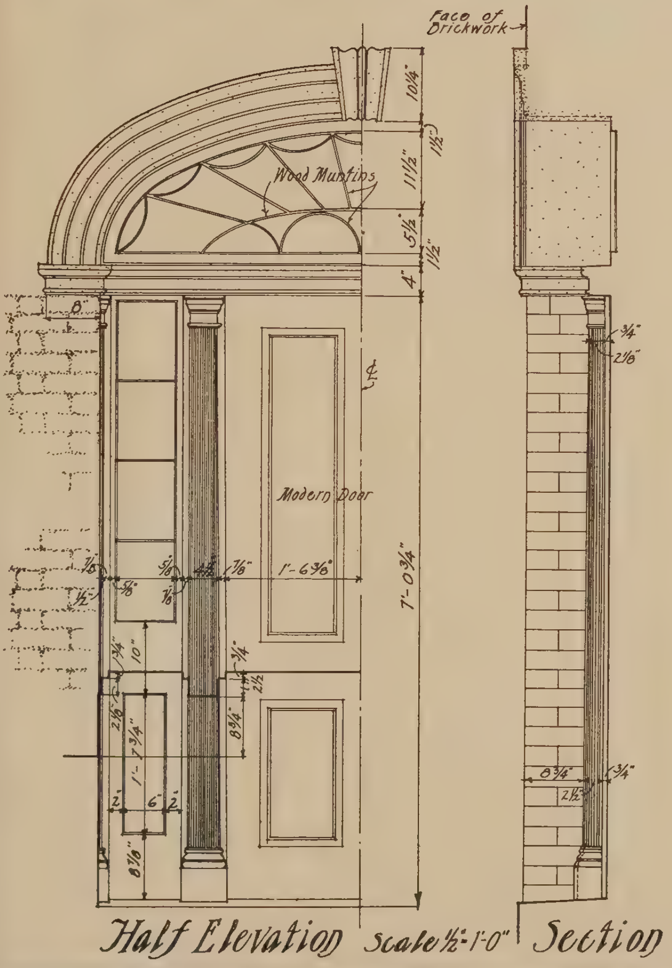
·DRAWING·NO·63·
·OCTOBER·1917·
·DRAWN·BY·WALTER·McQVADE·





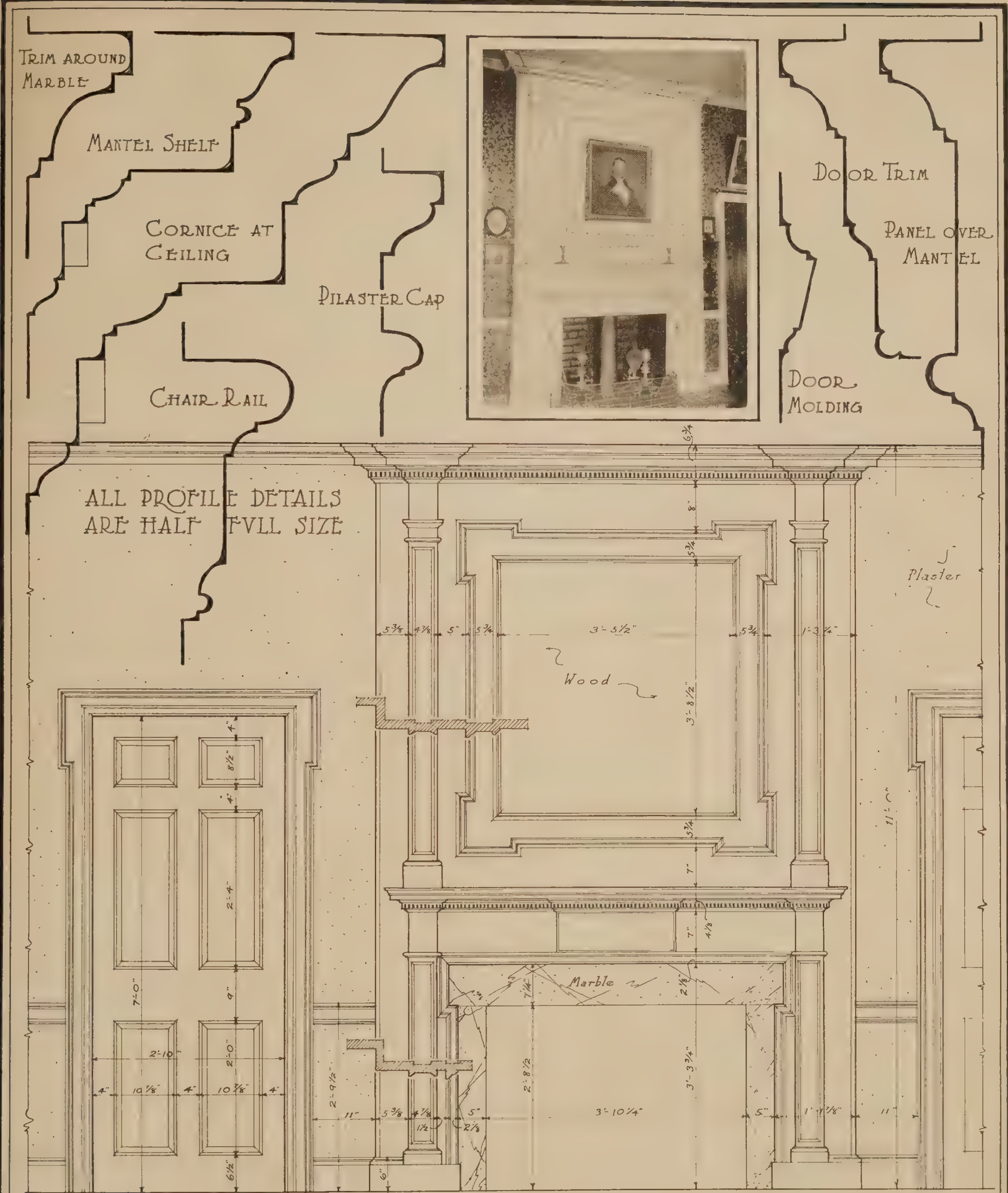






Early Architecture of Virginia	Doorway - Corner King & Wash. Sts. Alexandria, Va. Date About 1820 Architect Unknown	Measured & Drawn By J. L. Keister O. J. Munson J. A. Weber

Illinois U. Library



· ONE HALF INCH SCALE ELEVATION ·

EARLY ARCHITECTVRE
OF
NEW JERSEY

· LIBRARY MANTEL, ·
IMLAY HOVSE, ALLENTOWN N.J.
BVILT IN 1790

MEASVRED & DRAWN
By
Albert E. Micklewright

The Address of Borough President Marks of Manhattan, New York, at the Conference Held to Discuss Present Building Conditions

WAR considerations come first in attacking business problems at this time. Everything that may interfere with whole-hearted concentration in our efforts to push the war to a successful finish must give way. Still, we must not forget that stagnation in any legitimate industry will tend to undermine the general prosperity of our country; upon this continued prosperity we depend for our ability to finance our own and the Allied forces.

To manufacture beyond a healthy demand for output is always dangerous; but a condition where manufacturing practically ceases in spite of an overwhelming demand requires investigation and action. This conference has been called, on the suggestion of the Building Materials Exchange, for interchange of views on the present building situation. Many builders and capitalists have suspended constructive operations largely on account of high prices of materials. The question arises: Is the present level of prices likely to be maintained for some years to come? If so, is it not folly to allow the building industry and all the collateral industries depending upon it, to stagnate when the demand for homes, particularly in Manhattan, so far exceeds the supply? Should population be permitted to seek homes elsewhere because Manhattan builders and their backers are waiting for a drop in prices of material which may not come?

Very large items of 1916 and 1917 are high buildings and stables, and garages planned to anticipate the restrictions of the new zoning laws.

It may be noted that of all plans filed during the current year, less than $500,000 worth of the work has been completed to date.

About 40% of the work on new buildings now in course of construction is covered by plans filed in 1916.

Estimated cost of new buildings, plans filed during first 8 months of 1916, amounted to........................	$100,987,645
Estimated cost of new buildings, plans filed during first 8 months of 1915, amounted to........................	50,996,300
Estimated cost of new buildings, plans filed during first 8 months of 1914, amounted to........................	34,491,240

What will happen to business in general, if building is not resumed?

Our business structure is like a row of bricks—if one falls the whole row is in danger of going down. I trust that we shall develop facts to-day which will warrant a new healthy optimism encouraging resumption of such building operations as are needed to supply the legitimate demands of our city. We should not encourage the slogan "Business as usual." Government business is paramount. But for the future welfare of labor and home-seekers, as well as other important interests, we should consider seriously present building conditions.

This conference of the building interests in New York called forth a number of encouraging and valuable remarks from men of prominence identified with the building trades. Among the speakers were William K. Hammond, brick manufacturer of Newburgh; F. E. Connor, of the Building Trades Employers Association; L. W. Harrington, president of the Credit Association of Building Trades of New York; Arthur B. Pendleton, secretary of the National Terra Cotta Society; Herbert D. Fredenbury, front brick and cement manufacturer; Benjamin Traitel, of the Traitel Marble Company; Walter T. Smith, of the George A. Fuller Company; Walter Stabler, comptroller of the Metropolitan Life Insurance Company; Henry Atterbury Smith, architect; Charles Burns, Long Island Building Trades; Michael Cohen, building stone; G. Harris Jones, former Superintendent of Building of the Bronx; William H. Rockwood, Stephen B. Duffy, John M. Demarest, Joseph Paterno, and Allen Beals.

The prediction of Walter T. Smith, Vice-President of the George A. Fuller Co., that conditions would be better by the first of the new year seems to have come true before time in the reduction in the price of steel.

With the reduction in the price of steel a committee has been appointed for forming a plan for improving building construction conditions without interfering with the needs of the country.

A Suggestion for Other Conferences to Investigate Building Conditions

THE value of and great interest shown in the conference called by President Marks of the Borough of Manhattan, New York, to investigate building conditions, has suggested the nation-wide value of such conferences in other cities. The editor of ARCHITECTURE has written to the Building Materials Exchanges in all our large cities, suggesting the calling of such conferences, and the gist of their reports, if there are any, will be published in our pages.

The Business Men of the Country Give Signal Proof of Their Patriotism

THE War Convention which met in Atlantic City last week at the call of the Chamber of Commerce of the United States gave convincing evidence of the patriotic spirit which is animating the business men of the country.

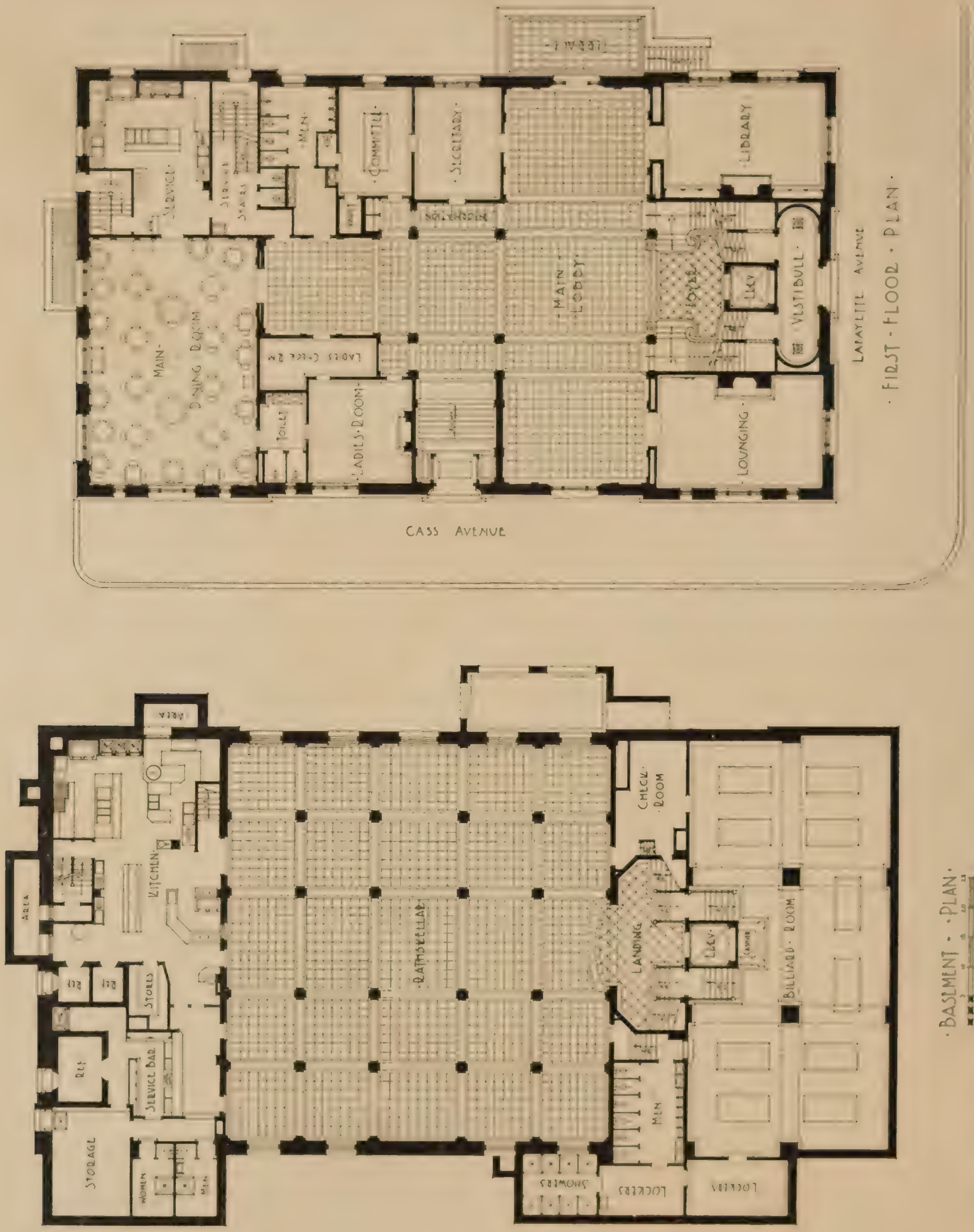
The convention showed that the business interests not only decry "profiteering," as it is called in England, but that they are anxious to furnish the money needed for bringing the war to a successful conclusion.

The speech made by the Secretary of the Interior, Mr. Lane, described in a striking manner what has already been done, and voiced the determination of the business interests and of the entire country to win the war, no matter what the cost may be, in order that the governmental principles and ideals of the United States may be established beyond the reach of successful attack from any quarter.

The attitude taken by the business men shows that the highest patriotism is not the exclusive possession of any one class of citizens in this great Republic. Some useful suggestions were made in the course of the convention. They were not actuated, however, by a desire to increase business profits or to be freed from governmental dictation; on the contrary, they urged a more complete governmental control and offered submission to a still more sweeping governmental regulation.

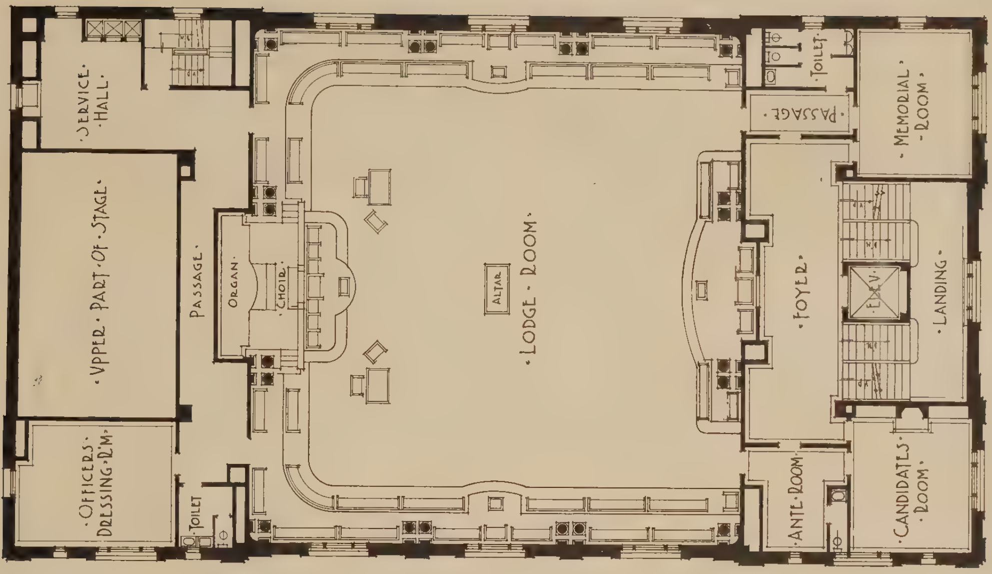
The convention will be an inspiration at home and a demonstration abroad that the United States is in this war to win, not from any selfish motive but for the security of the future of mankind.

From the "Bulletin of the Merchants Association," New York.

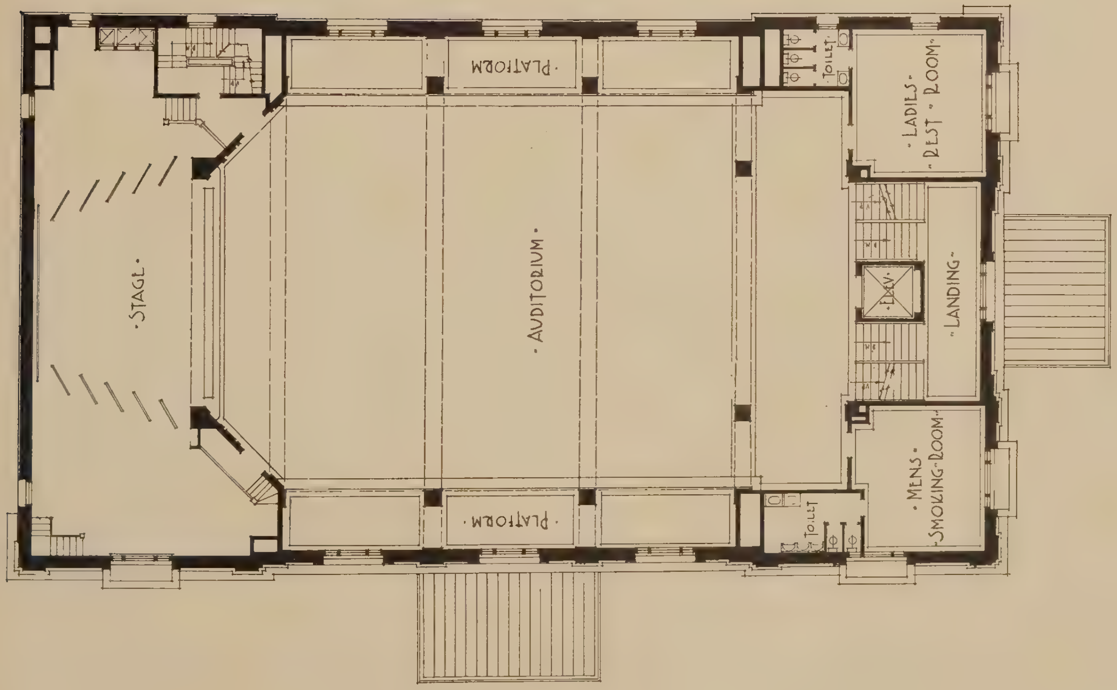


PLANS, ELKS CLUB BUILDING, DETROIT, MICH.

Van Leyen & Schilling, Architects



· THIRD · FLOOR · PLAN ·



· SECOND · FLOOR · PLAN ·

PLANS, ELKS CLUB BUILDING, DETROIT, MICH.

Van Leyen & Schilling, Architects.

Facts and Figures for Fireplaces and Flues

By Harold V. Walsh

Instructor Columbia Architectural School

HAS the design of a fireplace and chimney been reduced to practical working figures? From the troubles that so many have, the answer to this question would seem to be negative. In reality, however, there are definite working rules for designing this important feature of the modern house.

There are three big facts to keep in mind when a fireplace and chimney is being designed. These facts may seem elementary, but because they are not always remembered there are hundreds of cases of failures, and the daily paper can be picked up to find the advertisement of fireplace doctors who are kept very busy fixing up these sick patients. First of all, a fireplace must be made practical, so that it will neither be a smoker or a nuisance with its dirt. Secondly, a fireplace should be made fireproof, and all the flues in the chimney made fireproof as well as good draft-producers. Thirdly, a fireplace should be artistic.

These statements may seem elementary but, as has been said, they are forgotten. For instance, there are many cases of artistic and beautiful fireplaces which smoke so badly that they are not only a nuisance, but they even destroy their artistic values by smudging themselves with smoke-stains. Why? Because the designer in his endeavor to produce an artistic mantel failed to think of the laws of fire burning. Many instances can be cited where fireplaces have been made artistic and burnable, but set the house on fire. It is not hard to find fireplaces both practical and fireproof which lack artistic value.

To design the fireplace from a practical standpoint is the necessary beginning. Its location is generally one which depends upon the shape of the room. It is, however, well to remember that, although the fireplace which is built in a chimney on the outside is better-looking, it will not always have as good a draft as one which is built inside of the house. This is because of the rapid cooling of the hot air in the flues and the long time it takes to heat them up when the chimney has an exposed position. This is hardly a factor to determine the location of the fireplace, but, if there is a choice between an inside and an outside chimney for connecting up the flue of the boiler, choose the inside chimney.

The width of the fireplace is determined to a large extent by the room and what is to be burned in it. For cordwood a large fireplace must be made, 4′ 0″ or 4′ 6″ or 5′ 0″ wide. For ordinary purposes, however, the following widths are satisfactory, 2′ 6″ or 3′ 0″ or 3′ 6″.

From the width the height is determined. This should never be greater than two-thirds the width. For a good set of proportions for fireplace openings, use the following:

WIDTH	HEIGHT
2′ 6″	1′ 8″
3′ 0″	2′ 0″
3′ 6″	2′ 4″
4′ 0″	3′ 0″
4′ 6″	3′ 0″
5′ 0″	3′ 4″

The depth should never be less than 16″, and 20″ is better. For a large fireplace 24″ is good, but to make it any deeper is poor designing.

The sides should splay, in order to throw the heat out into the room. This splay should never be greater than 45 degrees. An average angle of 60 degrees is good.

The lintel of the breast of the fireplace should not be square. This stops the easy flow of the heated air. It should curve in a quarter circle from the plain of the front of the fireplace up to the throat. This same curve should be mitred at the ends and draw in to the throat at this point. This curve can be secured in a reinforced concrete throat or a cast-iron throat and damper. The next best shape for the lintel is an angular slope to the throat.

The throat itself should always be 4″ wide and as long as can be correctly set into the width of the fireplace. This will generally make it about a foot less than the width of the opening.

A damper is an excellent thing to have, because it will regulate the opening according to the conditions of the day, and throw more heat into the room when it is slightly closed after the fire has been started and the worst of the smoke has ceased. It also permits of shutting off the opening when there is no fire. In the winter this is an important thing to be able to do, for an open fireplace will often be a means of losing a great deal of heat from the room. If there is no damper to close when the fireplace is not in use, a back draft will sometimes blow down the chimney with a disagreeable odor of soot.

In most cases the dampers of cast iron are made so that they will act as metal lintels to hold up the bricks of the arch opening. This can be secured also by making a reinforced-concrete throat. This throat if made properly can be one solid slab extending through the entire chimney bonding it together.

A flat-bottomed smoke-chamber is a very necessary part of a good design, for such a shape repels any down drafts. The smoke-chamber should incline inward to the size of the flue at an angle of 60 degrees. The brick should be clipped off at the corners so that the interior is absolutely smooth. The top of the smoke-chamber should act as a rest for the bottom of the terra-cotta flue lining. Smoke-chambers of reinforced concrete are made which can be set in place quickly and easily. When the chimney is being built, the droppings of mortar should be cleaned out of the bottom of the smoke-chamber before they set too hard, for if they do it may necessitate removing some bricks to get them out, or leaving them in, which is generally the way.

The size of the flue necessary for the opening of the fireplace can be safely proportioned to the following figures: For 2′ 6″ and 3′ 0″ widths use 8″ x 12″ flue, for 3′ 6″ width use 12″ x 12″ flue; for 4′ 0″ width and 4′ 6″ use 12″ x 16″ flue, and for 5′ 0″ width use a 16″ x 16″ flue.

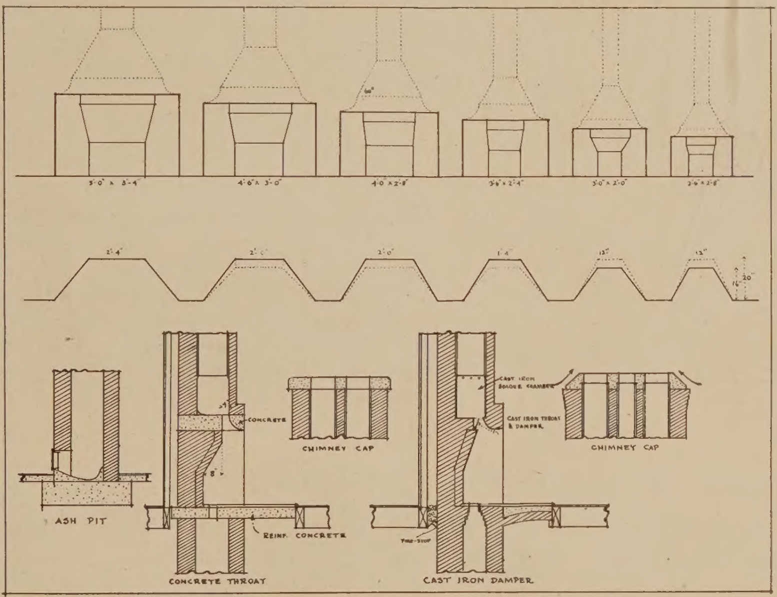
The back of the fireplace should slope forward to the throat. This slope should start 11″ from level of hearth for 2′ 6″ opening, 12″ for 3′ 0″, 13″ for 3′ 6″, 15″ for 4′ 0″ and 4′ 6″, and 16″ for 5′ 0″ opening width.

All fireplaces to be complete should have a metal clean-out door in the hearth and an ash-pit in the cellar with an iron door. The bottom of the ash-pit should have all corners rounded off so that cleaning is made easy.

The hearth is generally extended in front of the fireplace 20″ to 24″. This can be made of a brick trimmer arch, which springs from the chimney to the header beam, or it can be made of a reinforced-concrete slab which extends through the entire chimney. Where the brick arch is used the hearth must be levelled with about 2″ of concrete for setting the tile. It is good practice to put in a tie-rod between the header beam and the chimney.

In planning the chimney, it should be built on a firm foundation and stand independent of the building. No framing timbers should come within 2″ of it. Where timbers are framed around the back of a fireplace they should be kept at least 4″ away. All these open spaces between timbers and chimney should be filled with mineral wool, loose cinders, gypsum block, or other porous incombustible material. In no case should any wooden furring be placed against a chimney for lathing on. The plastering should be done directly upon the brickwork of the chimney or on metal lath stretched over it. In a frame building, where the chimney is located half-way between inside and outside walls, a brick projection of 4″ should be built on the chimney to receive the framing studs on each side. Flashing should be run down this junction of masonry and framing.

If a concrete hearth slab is used, this can be projected 2″ from the chimney to act as the fire-stop between floors in the same way that the filling acts in the other case.



No chimney should be less than 30′ in height to secure a good draft. The highest part of it should be 4′ above any part of the roof. No bends or sharp offsets should be built in the flues. Often, to get around rafters which have been spaced evenly across the roof, the chimney is shifted suddenly 6″ or so to one side. This is bad. Where a chimney penetrates the roof the rafters should be framed around it with the same care that the floor joists are. A saddle should be built on the up side of the chimney in respect to the slope. Flashing and counter-flashing are very important features that cannot be neglected.

Flue tiles are absolutely necessary for the modern chimney. To build one without them is neglect of duty. In laying up any flues or brickwork in the chimney only Portland-cement mortar should be used. Lime mortar disintegrates with hot gases from wood and certain coals.

Brickwork around the outside of flues for boilers, furnaces, bakers' ovens, large cooking-ranges, large laundry stoves, and similar flues should be 8″ thick. The walls for fireplaces or ordinary coal-stoves need only have 4″ of brickwork around the outside. Where there are two or more flues in a chimney, the walls between them should be 4″ thick. Where flues are only from fireplaces, it is sometimes practical to use only 2″ of brickwork between flues.

The cap of the chimney is an important part of its working ability. There are many different types of chimney caps. The best, however, from a practical standpoint is a concrete cap sloped at an angle of 45 degrees on the edges toward the flue openings. No caps should be used which decrease the size of the flue area. Terra-cotta chimney-pots are artistically interesting, but there is considerable doubt as to their efficiency. Bluestone caps have a tendency to warp in time. A sheet-metal cap is generally only added when there is something the matter with the chimney.

In setting any chimney work, no parging mortar should be allowed either in the smoke-chamber, flue, or flue base.

Where a smoke-pipe is to be connected at the lower part of a flue, it is best to have a terra-cotta flue-lined hole, but this is only absolutely necessary when the surrounding walls are less than 8″ thick. In any case don't forget the clean-out at the bottom.

The size of flues for steam-boilers should not be guessed at but figured on a basis of allowing one square foot of area for every 7 square feet of grate surface. For smaller boilers this relative proportion can be slightly increased with advantage. Never should a flue be less than 8″ x 8″.

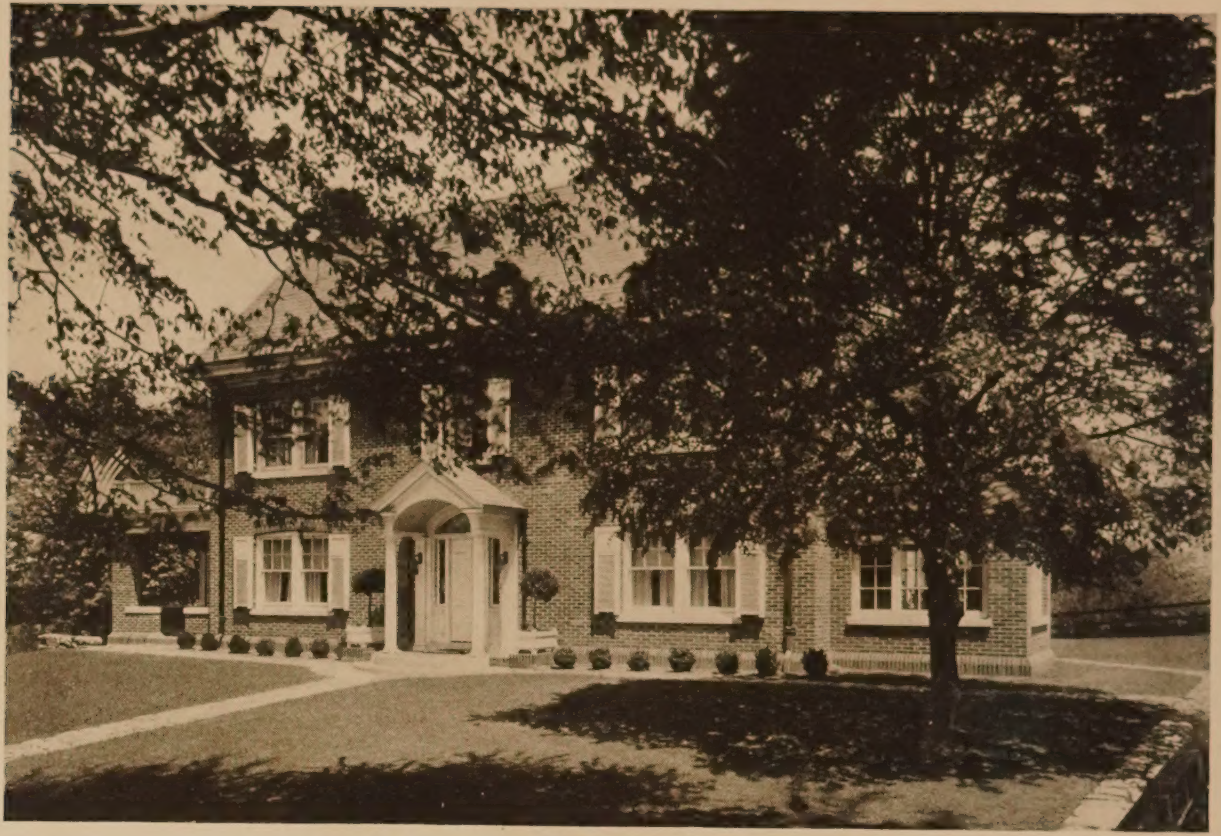
It often is desirable to corbel out a chimney. This should never be done beyond a distance of 8″, and it should consist of at least five courses of brick.

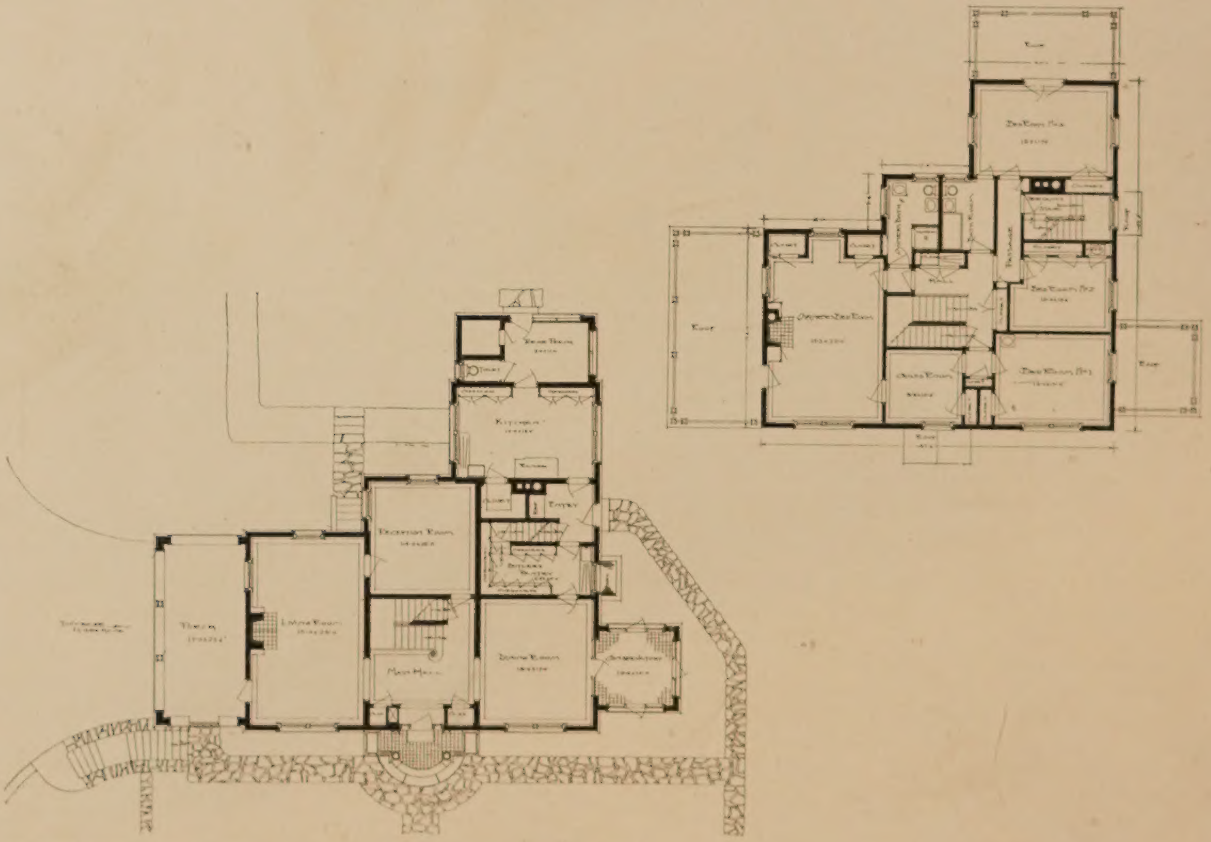
Fire precautions concerning wooden mantels at fireplace openings should be observed. No part of the woodwork should be placed within 8″ of the side nor within 12″ of the top.

It is best to line the back of the fireplace with fire-brick laid the 4″ thickness. However, in any case, the back of a fireplace should never be less than 8″ thick of good brick. Fire-brick should always be used where a grate is set into the fireplace opening.

In connecting any stoves, boilers, etc., with smoke-pipes to the chimney flues, they should never connect any nearer the under side of wooden floor joists than 18″. If the upper part of the smoke-pipe is covered with 1″ of asbestos, or similar covering, it is safe to connect it 9″ below the ceiling.

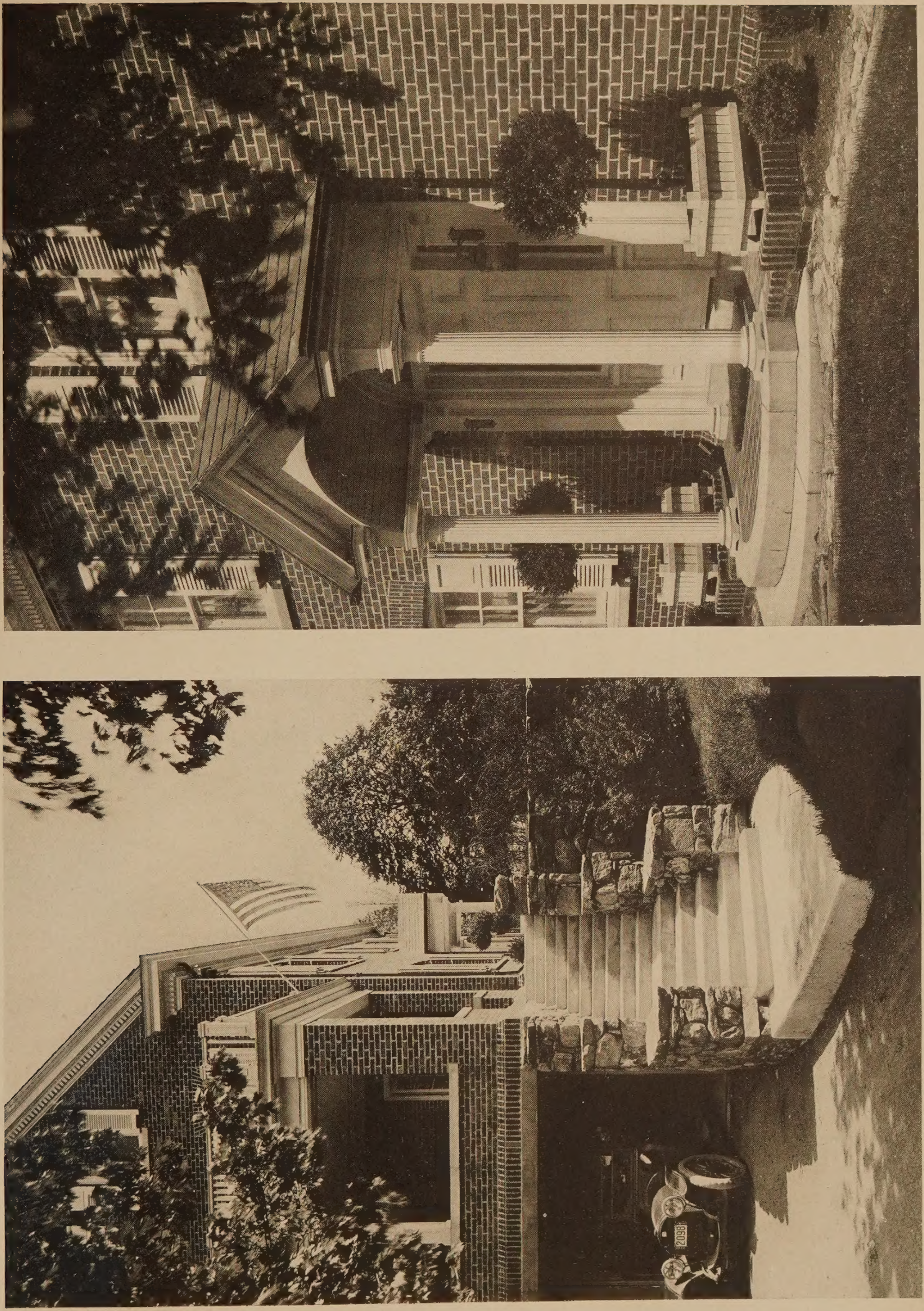
With the facts given here for the practical design of the fireplace and chimney, satisfactory results will be obtained. The artistic solution must be worked out by the designer from these limiting requirements. Lay out all the practical figures first, and then start the design for artistic appearance. Never work in the reverse order, for some practical feature may be forgotten.





HOUSE AND PLANS, HOWARD CHAPMAN, STAMFORD, CONN.

Howard Chapman, Architect.



DETAILS, HOUSE, HOWARD CHAPMAN, STAMFORD, CONN.

Howard Chapman, Architect.

Legal Decisions of Interest to the Architect

These decisions appear monthly and are edited by Mr. John Simpson, the well-known lawyer

Compensation for Architect's Services

An architect was employed to make plans and specifications for a new building. A dispute having arisen respecting the amount of his compensation, the parties agreed in writing that he should be paid $1,500 for said plans and specifications and supervising the construction of the building, $750 of which was payable upon the completion of the plans and specifications, $375 when the building was half completed, and the remainder upon completion. The $750 was paid upon the signing of the agreement, but the owner never proceeded with the construction of the building. The New Jersey Court of Errors and Appeals holds, in a suit by the architect to recover for his services, that the written contract was controlling as to the rate of compensation and that the amount thereof was to be determined according to the rule laid down in Kehoe *vs.* Rutherford, 56 N. J. Law 23. There it was held that when, under a valid contract to perform a specified work for a specified price, the plaintiff has done part and has been prevented from performing completely through the fault of the defendant, the legal measure of the plaintiff's damages is generally, for the work done, such a proportion of the entire price as the fair cost of that work bears to the fair cost of the whole work, and in respect to the work not done, such profits as he would have realized by doing it.—Kitchell *vs.* Crossley (N. J.), 101 Atl. 179.

Termination of Building Contract by Owner

A contract for the construction of a school building provided that, if the contractor should fail to supply sufficient labor or materials, or in the performance of any of the agreements therein, such failure being certified by the architects, the school board should be at liberty after three days' written notice to the contractor to provide any such labor or materials, and deduct the cost from moneys due the contractor, "and" that, if the architects should certify that such action be taken, the board should also be at liberty "at once" to terminate the contractor's employment and complete the work. The Utah Supreme Court holds that the board was entitled, upon the architect's certifying that the contract should be terminated, to terminate it immediately without notice, as "at once" meant immediately and without delay, while "and" meant in addition to or something added to what preceded it.—Board of Education *vs.* Wright-Osborn Co. (Utah), 164 Pac. 1033.

Sufficiency of Architect's Certificate

A contract for the construction of a school building authorized the school board to terminate the contract on certificate of the architects. Two architects who were partners were named, but one of them was a mere silent partner and the other did all the work of preparing the plans and specifications and superintending and overseeing the erection of the building. The Utah Supreme Court holds that a certificate on which the board terminated the contract was not insufficient because it represented the judgment of only the active architect.—Board *vs.* Wright-Osborn Co. (Utah), 164 Pac. 1033.

Release of Sureties

An owner advertised for bids for the construction of a building and let the contract to a contractor whose bid of $4,640 was considerably less than any other bid. There was no concealment or misrepresentation on the owner's part. The Louisiana Supreme Court held that the contract was valid though the owner was told by the architect that the house could not be built for less than $7,000 and that the materials alone would cost as much as the contractor's bid, and though the owner therefore had reason to know that the contractor was bound to lose and that she was bound to derive an unconscionable advantage from the contract.

On being tendered a bond to secure the performance of the building contract, the owner was not bound to investigate to ascertain whether the signatures of the sureties had been obtained by fraud, and the bond was not invalid though the sureties were induced to execute it by the contractor's misrepresentations that his bid on the work was only slightly less than the next lowest bid and that the construction of the building would cost less than his bid, leaving him a good margin of profit.

It is not the law that sureties on a building contractor's bond, duly executed and delivered, may withdraw at any time on notice, and be bound only for what may have been done up to the time of the notice. The owner's duty to minimize the damages did not require her to forfeit the contract and thereby renounce the benefit of the contract and release the sureties on the contractor's bond.—Tooke *vs.* Burke (La.), 75 So. 668.

Building Contract—Counter-Claim by Owner

In an action on a building contract by the contractor, the owner may elect to counter-claim against the contractor for any damages sustained by the latter's failure to perform in accordance with the contract instead of defending against any recovery because of such failure to perform.—Brown *vs.* Tull (Okla.), 164 Pac. 785.

Action on Surety Bond

A surety company executed a bond to the purchaser of an uncompleted building to secure completion by the seller. The company retained no interest in the purchase price. The contract was made upon the credit of the seller and not upon the credit of the contract between seller and buyer. The Washington Supreme Court held, in an action on the bond, that the fact that the surety company was not informed that the stated consideration of the contract was to be partly in money and partly in other property did not release it from liability, no prejudice resulting to the company.—Osborne *vs.* Chicago Bonding & S. Co. (Wash.), 164 Pac. 742.